
**SINAL REPORT, REVISED SETTLEMENT,
1910-1914.**



सत्यमेव जयते

Revised list of Agents for the sale of Punjab Government Publications.

IN THE UNITED KINGDOM.

CONSTABLE & Co., 10, Orange Street,
Leicester Square, London, W. C.

KEGAN PAUL TRENCH, TRÜBNER & Co.,
Limited, 68-74, Carter Lane, E. C.,
and 25, Museum Street, London,
W. C.

BERNARD QUARITCH, 11, Grafton Street,
New Bond Street, London, W.

T. FISHER UNWIN, Limited, No. 1,
Adelphi Terrace, London, W. C.

P. S. KING AND SON, 2 & 4, Great
Smith Street, Westminster, London,
S. W.

H. S. KING & Co., 65, Cornhill and 9,
Pall Mall, London.

GRINDLAY & Co., 54, Parliament Street,
London, S. W.

W. THACKER & Co., 2, Creed Lane,
London, E. C.

LUZAC & Co., 46, Great Russell Street,
London, W. C.

B. H. BLACKWELL, 50 and 51, Broad
Street, Oxford.

DEIGHTON BELL, & Co., Limited, Cam-
bridge.

OLIVER & BOYD, Tweeddale Court,
Edinburgh.

E. PONSONBY, Limited, 116, Grafton
Street, Dublin.

ON THE CONTINENT.

ERNEST LEROUX, 28, Rue Bonaparte,
Paris, France.

MARTINUS NIJHOFF, The Hague Hol-
land.

IN INDIA.

A. CHAND & Co., Imperial Book Depôt
Office, Delhi.

GULAB SINGH AND SONS, Mufid-i-'Am
Press, Lahore.

MANAGER, Punjab Law Book Depôt,
Anarkali Bazar, Lahore.

S. MUMTAZ ALI & SON, Rafah-i-'Am
Press, Lahore (for vernacular publi-
cations only).

RAMA KRISHNA & SONS, Book-Sellers
and News Agents, Anarkali Street,
Lahore.

N. B. MATHUR, Superintendent and
Proprietor, Nazir Kanun Hind Press,
Allahabad.

D. B. TARAPOREVALA, SONS & Co.,
Bombay.

THACKER SPINK & Co., Calcutta and
Simla.

NEWMAN and Co., Calcutta.

R. CAMBRAY and Co., Calcutta.

THACKER and Co., Bombay.

HIGGINBOTHAMS, Limited, Madras.

T. FISHER UNWIN, Calcutta.

V. KALYANARAM IYER & Co., 189,
Esplanade Row, Madras.

G. A. NATESAN & Co., Madras.

SUPERINTENDENT, AMERICAN BAPTIST
MISSION PRESS, RANGOON.

FINAL REPORT

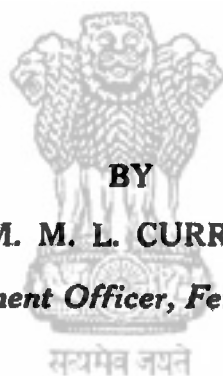
OF THE

REVISED SETTLEMENT, 1910–1914

OF THE

FEROZEPORE DISTRICT,

BY
M. M. L. CURRIE,
Settlement Officer, Ferozepore.



L a h o r e :
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRINTING, PUNJAB.
1915.

TABLE OF CONTENTS.

Para.	Contents.	Page.
CHAPTER I.—GENERAL DESCRIPTION.		
1	Boundaries and Dimensions	1
2	Natural Divisions	ib.
3	Administrative Divisions	2
4	Assessment Divisions	ib.
5	Assessment Circles	ib.
6	Rainfall	3
7	Irrigation	ib.
CHAPTER II.—FISCAL HISTORY		
8	Political History	4
9	Rise of British Power	ib.
10	Pre-British Revenue System	ib.
11	Summary Settlements	5
12	Regular Settlement	ib.
13	Revisions of the Regular Settlement	ib.
14	Working of the Last Settlement	6
CHAPTER III.—DEVELOPMENT AND DATA FOR ASSESSMENT.		
15	Communications	6
16	Markets	7
17	Agricultural Population	ib.
18	Stock	8
19	Agricultural Development	ib.
20	Alienations	9
21	Value of Land	10
22	Cash Rents	ib.
23	Rates of Batai	11
24	Additions	ib.
25	Deductions	ib.
26	Series of Years selected for the Produce Estimates	12
27	Yields	ib.
28	Prices	14
29	Rise in Prices	ib.
30	Grounds for enhancement of the revenue	ib.
CHAPTER IV.—REVISION OF THE RECORD OF RIGHTS.		
31	Progress of Work	14
32	Unit of Measurement	15
33	The old Maps	ib.
34	Re-measurement	16
35	Scale of the Maps	17
36	Accuracy of the Maps	ib.
37	Other points connected with the survey	ib.
38	Classification of soils	18
39	Mutations	19
40	Contents of the Record of Rights	ib.
41	Wajib-ul-Arz	20
42	Partitions	ib.
43	Other case work	ib.
CHAPTER V.—REVISION OF THE ASSESSMENT.		
44	General —	
	(i) Nabri Parta	20
	(ii) Khush Haisiyati	ib.
45	True Half-net Assets	ib.
46	Assessments by Tahsils	22
47	Moga (1) Rohi	ib.
	(2) Mahraj	ib.
	(3) Grey Canals	ib.

Para.	Contents.	Page.
CHAPTER V.—REVISION OF THE ASSESSMENT—concluded.		
48	Ferozepore (1) Rohi	23
	(2) Bet	ib.
49	Zira (1) Rohi	24
	(2) Bet	ib.
50	Mamdot Jagir (1) Rohi	ib.
	(2) Dhora	ib.
	(3) Bet Mamdot	25
	(4) Bet Jalalabad	ib.
51	Muktsar Pargana (1) Rohi	ib.
	(2) Muktsar Utar	ib.
	(3) Kot Kapura Utar	25
	(4) Hithar	ib.
	(5) Guru Har Sahai	ib.
52	Fazilka (1) Rohi	ib.
	(2) Utar	ib.
	(3) Hithar	27
53	Comparison of amount actually imposed with that sanctioned and amount deferred	ib.
54	Comparison of amount actually imposed with the last year of the old demand and the increase forecasted	28
55	Reception of the new demand as gauged by objections and appeals	ib.
56	Internal distribution of the new demand	ib.
57	Term of Settlement	29
CHAPTER VI.—OTHER MATTERS CONNECTED WITH THE ASSESSMENT.		
58	Alluvion Diluvion Assessments	30
59	Nahri Parta Rules	ib.
60	Kallar Rules	ib.
61	Fluctuating system in Fazilka Hithar	ib.
62	Wells	ib.
63	Suspensions and Remissions	ib.
64	Market Assessments	31
65	Revision of Revenue Assignments	ib.
66	Cesses	33
CHAPTER VII.—MISCELLANEOUS.		
67	Patwaris and Kanungos	33
68	Zaildari and Safedposhi Arrangements	ib.
69	Lambardars	34
70	Grey Canals	ib.
71	Riwaj-i-Am	ib.
72	Gazetteer	ib.
73	Village Note Books	ib.
74	Trijunction Pillars	35
75	Records	ib.
76	Notice of Officers	ib.
77	Training of Officers	36
78	Cost of Settlement	ib.
GLOSSARY.		
APPENDICES.		
A.—Notifications relating to the Settlement		i—ii
B.—Alluvion Diluvion Rules		iii—viii
C.—Nahri Parta Rules		ix—x
D.—Kallar Rules		xi
E.—Well Rules		xii—xiii
F.—Scheme for Suspensions and Remissions of Revenue		
STATEMENTS.		
I.—General statement of area, revenue, etc.		xviii
II.—Cost of Settlement		xviii
Map		

FROM

THE HON'BLE MR. H. D. CRAIK, I.C.S.,

Offg. Revenue Secretary to Government,

Punjab and its Dependencies,

TO

THE JUNIOR SECRETARY TO THE FINANCIAL
COMMISSIONERS, PUNJAB.

Dated Lahore, 15th June 1916.

Revenue and Agriculture.

Revenue.

SIR,

I AM directed to acknowledge the receipt of your letter No. 32, dated 10th January 1916, forwarding Mr. Currie's Final Settlement Report of the Ferozepore District and connected papers.

2. The agricultural resources of the district have undergone considerable development since it was last resettled. In Muktsar and Fazilka there has been a substantial expansion of cultivation, and though in other tahsils it has been stationary or shows a slight decline there has been an increase of 5 per cent. in the cultivated area of the district as a whole. Perennial irrigation from the Sirhind Canal has been widely extended in Moga, Fazilka and Muktsar, and out of a total cultivated area of 2,203,000 acres, 938,000 acres or 42 per cent. are now protected either by this canal (28 per cent.), the Grey Canals (8 per cent.) or by wells (6 per cent.). A clearer indication of the great part which canal extension has played in the development of the district is furnished by the fact that while cultivation has extended roughly by 100,000 acres, perennial irrigation from the Sirhind Canal has risen by nearly 200,000 acres, and flood irrigation from the Grey Canals by about 30,000 acres. At the same time, the extension of communications and the opening up of new markets have proceeded on a scale for which we have to look for a parallel in the new Canal Colonies. Railway facilities have been immensely improved, and the district is now covered by a net-work of lines which bring practically every corner of it within easy reach of an excellent market. The railways are supplemented by many miles of metalled road, and an important trade has sprung up at Moga, Abohar, Muktsar, Fazilka and other convenient centres. Between 1891 and 1911 the population, which is now close on a million, increased by 8 per cent., but holdings are fairly large and the rise in population is a source of economic strength rather than weakness. Sikh Jats hold nearly one-half of the cultivated land. They are excellent farmers, enterprising and industrious, though somewhat addicted to crimes of violence and strong liquor. The Muhammadan tribes who predominate in the Sutlej riverain are poorer cultivators, and in this tract there has been some deterioration of the soil due mainly to unrestricted and excessive irrigation from the inundation canals. Rules have now been framed providing for the remission of the revenue demand on lands rendered unculturable owing to the spread of kallar, but it is to be hoped that the process of deterioration will be checked by the better arrangements now devised for the working of the Grey system of inundation canals.

These canals though not designed on up-to-date scientific principles play a large part in the agriculture of the district. They were constructed nearly a generation ago by the labour of the people organised and directed by Colonel Grey, a former Deputy Commissioner. They are now owned and managed by the people under the control of the District Officer, and with recent additions irrigate over 200,000 acres—furnishing a notable example of what can be effected for the improvement of a district by the combined efforts of the people and their officers. The efficient maintenance of the system is one of the most important duties of the Deputy Commissioner, and the Lieutenant-Governor trusts that the liberal grants-in-aid recently sanctioned to supplement local resources will bring about the removal of existing defects and lead to a further increase in irrigation.

3. As in other districts the rise in the prices of agricultural produce during the currency of the expired settlement has been very marked. The all-round percentage of enhancement varies in different parts of the district from 50 to 60. That the calculations have been made with the utmost consideration to the producers will appear from the fact that the price of wheat has been taken at Rs. 2-2-0 per maund, that of gram at Re. 1-9-0 and that of raw cotton at Rs. 4-12-0. The value of land has appreciated in sympathy with the rise in prices, and is now double that of 20 years ago in two tahsils and quadruple in the remaining three. Only 11 per cent. of the cultivated area is under mortgage, and only one-fourth of this has passed into the hands of the money-lending classes. There can be no doubt that the general level of prosperity among the land-owners of the district, except in the riverain tracts, is well above the average, and has steadily increased within the last generation.

4. All these considerations—the extension of cultivation, the expansion of perennial and flood irrigation, (the profits from which were left entirely out of account in the previous assessment,) the rise in prices and land values, and the high level of prosperity—coupled with the ease with which the previous demand had been collected, justified a large enhancement of the revenue. The actual increase taken, a little under 6½ lakhs or 52 per cent. of the old demand, though substantial, cannot be described as other than extremely lenient. The collection of about 3 lakhs or nearly one-half of the enhancement will be deferred for a term of years, and the final demand—slightly less than 19 lakhs—will absorb only 40 per cent. of the leniently calculated full theoretical assessment of 47½ lakhs, and only 7·6 per cent. or one-thirteenth of the value of the gross produce. The incidence of the new demand is only Re. 0-13-8 per acre cultivated and Re. 1-0-8 per acre matured. The rate of enhancement varies from 80 per cent. in Fazilka to 29 in Ferozepore tahsil, but the fact that the new demand in Fazilka absorbs a smaller share of the half-net assets than in any other tahsil, shows, as the Financial Commissioner has pointed out, that inequalities of assessment in a district so recently and so unevenly developed cannot be corrected in the course of a single settlement. The Lieutenant-Governor is inclined to agree with the Commissioner that Muktsar and Fazilka have escaped lightly as compared with Moga.

5. The new demand in its final form will be some 3 lakhs higher than was anticipated in the forecast, and the present case is a good illustration of the extreme difficulty of arriving at any exact forecast in a district of such great size, such rapid development and such varying conditions. The very small number of appeals against the assessment is only one of many proofs of its leniency, and incidentally corroborates the praise which the Commissioner and Financial Commissioner have bestowed on the Settlement Officer's village-to-village distribution of the demand. The Lieutenant-Governor notes with satisfaction that great care and trouble were also taken by Mr. Currie over the important work of the internal distribution of the demand over holdings, a task which in some settlements is apt to be hurried over or left almost entirely to subordinates. Time and trouble expended at this stage are never thrown away, as no other part of the settlement so intimately affects the interests of the average zamindar.

6. The limit of expansion has now been nearly reached in Ferozepore, the culturable waste being only 12 per cent. of the total area, and further development will depend mainly on possible extensions of the irrigation systems. In

view of this fact and of the substantial enhancement of revenue now taken, a long term of settlement is justified. It has already been announced that the term shall be 30 years, and that announcement is now formally confirmed with the proviso contained in paragraph 12 of the Financial Commissioner's review.

7. The settlement of this large and important district has been carried out with commendable despatch and economy, being completed in $4\frac{1}{2}$ years at a cost of $4\frac{1}{2}$ lakhs of rupees. The net annual addition to the land revenues (khalsa and assigned) will eventually be Rs. 6,40,000. The net increase to Government is nowhere stated, but as one-eighth of the revenue (paragraph 65 of report) is assigned it may be assumed that it will be from $5\frac{1}{2}$ to 6 lakhs. These results may be regarded as highly satisfactory both to the revenue-payers and to Government. The new maps and record-of-rights were completed punctually according to the time-table, in spite of the very heavy mutation and partition work involved. In the matter of accuracy, it appears from the Financial Commissioner's and Commissioner's remarks that they fall short in no respect of the very high standard set by Mr. Currie's predecessor, Mr. E. B. Francis. In addition to what may be called the subsidiary tasks of a Settlement Officer, such as the compilation of the district volume of customary law and the revision of the Gazetteer, Mr. Currie found time to write a useful report on the conditions and future management of the Grey Canals, which play a most important part in the prosperity of the riverain circles. His Honour cordially concurs in the high praise which Mr. Diack has bestowed on Mr. Currie's work, which has throughout been characterised by sound judgment, energy and skill in presenting his proposals clearly and concisely.

Messrs. Shuttleworth and Middleton both rendered useful assistance in the Zira Tahsil, and in Kanwar Raghubir Singh Mr. Currie had a capable and zealous Extra Assistant Settlement Officer.

8. The efficient control of the heavy revenue, criminal and administrative work of the district will be a severe task for the most energetic officer. The Lieutenant-Governor has noted Mr. Diack's suggestion that relief should be given to this district by reconstituting the old Sirsa District. That scheme is not yet within the range of practical politics, but meantime some relief has been afforded by the recent creation of a second sub-division at Moga.

सत्यमेव जयते I have the honour to be,

SIR,

Your most obedient servant,

H. D. CRAIK,

Offg. Revenue Secretary to Government, Punjab.

FINANCIAL COMMISSIONERS' OFFICE :

Dated Lahore, the 10th January 1916.

FROM

J. M. DUNNETT, Esquire, I.C.S.,

Junior Secretary to the Financial Commissioners, Punjab,

TO

THE HON'BLE MR. J. P. THOMPSON, I.C.S.,

Revenue Secretary to Government,

Punjab and its Dependencies.

The Hon'ble Mr. A. H. Diack, C.V.O.

SIR,

I AM directed to submit the report of the settlement of the Ferozepore District by Mr. M. M. L. Currie, together with the Commissioner's review, and to say that Mr. Currie has supplied exactly what is required in a settlement report,* namely, a concise and clear description of the settlement operations and their results. The orders passed on matters still pending when Mr. Currie wrote his report have been referred to by Mr. Fagan.

* Settlement Manual, paragraph 550.

2. As the Commissioner points out, the demand, which, in spite of the strong reasons for enhancement succinctly stated in paragraph 30 absorbs less than 8 per cent. of the value of the gross produce, is exceedingly lenient. The weaker circles have been treated with great consideration, and even where it has been necessary to impose a very large enhancement the assessment has been well received. The Commissioner is of opinion that parity of assessment from tract to tract has not yet been reached. Inequalities of assessment, particularly in a district with a fiscal history so varied and a development so uneven, are incapable of complete rectification in a single revision, and in Mr. Diack's opinion the success which has been achieved in this way on this occasion has been very considerable.

3. The summary of the methods followed in framing the produce estimate is very useful as a guide to the more detailed descriptions in the assessment reports. Cash rents are of importance only in the Rohi circle of Moga, but the check they afforded there to the produce estimate served indirectly as a test of the produce estimates in the other tahsils. The Financial Commissioner agrees with the Commissioner that they are based on very moderate assumptions, particularly those of yield and price. The commutation scale, sanctioned in 1910-11, has long been beaten by actuals, and even the lowest price reached by cotton during the recent slump was above that of the commutation scale, while wheat has generally sold at double the assumed price.

Deductions from the common heap for payment to menials are considerable only in well estates, and here Mr. Currie's conclusions agree with those arrived at elsewhere by Indian Settlement Officers. In view of the frequent representations as to the difficulty in subsisting on a small proprietary holding (not, however, a burning question in this district) it would be interesting if Settlement Officers would work out the average holding of a true tenant-at will who has no land of his own to fall back on and has to live on the produce of his tenancy.

4. In paragraph 14 the Settlement Officer pays a tribute to Mr. Francis for his careful distribution of the demand over estates at last settlement. From his knowledge of the completeness and care with which the Settlement Officer's village inspections were conducted and his notes recorded the Financial Commissioner is confident that this part of the work was as well done as it was even

at last settlement. An infinity of trouble was taken with the distribution over holdings also, as Mr. Fagan observes, and the table on page 29 shows the great variety of feeling on the subject. Mr. Fagan apprehends difficulties from the freedom left to the people in the treatment of the wet assessment, but the matter is one in which the Settlement Officer can only offer advice, and in which the people often have sound reasons for adopting what seems an illogical course. It is satisfactory that the simple soil classification adopted for field work and assessment proved sufficient for the purpose of the internal distribution.

5. The Financial Commissioner shares Mr. Fagan's confidence in the general accuracy of the new record. The maps unfortunately are on five different scales, and in several cases are the results of two successive corrections of the maps of 1873. It will be necessary for the Deputy Commissioner to see that in Muktsar in particular the instructions contained in part F. of Standing Order No. 16 are carefully observed. The usefulness of the maps for girdawari will be much improved by the action taken by the Settlement Officer to limit the size of fields. The view taken at the time of Mr. Francis' settlement that a field should comprise a property within a ring-fence, irrespective of variations in the soil or in the nature of the occupation, has since been abandoned. The reconstruction of the revenue

Settlement Officer's paragraph 75.

record room was commenced in August. As soon as the work is finished the new records should be brought to headquarters.

6. Mr Diack desires to emphasize even more than the Commissioner has done in his review the effort which was made to make record work keep pace with field work and the success which attended it. The following table shows that the settlement of each tahsil was completed in two years, or very little more : —

Tahsil.				Months devoted to field work and record work combined.	Months devoted to completion of records after work in the field was finished.	Total time spent on settlement.
Moga	...	...	...	18	8	26
Ferozepore	...	...	...	24	3	27
Zira	...	...	...	19	6	25
Muktsar	...	...	...	17	5	22
Fazilka	...	...	...	17	5	22

7. A concise account is given of the miscellaneous work undertaken by the Settlement Officer, and the rules which have been framed for the working of the assessment are printed as appendices. The careful and lucid report on the Grey Canals which Mr. Currie submitted has already received the commendation of Government which has also, by a substantial grant-in-aid, recognised the principle that when the irrigators are prepared to co-operate for the improvement of the canals assistance may be given from the Government revenues which have been augmented by the imposition or enhancement of water-advantage rate.

8. The amount of case-work was considerable, though the volume of it was less than in the smaller, but more litigious, district of Hoshiarpur which was settled simultaneously. Thus during the pendency of settlement the number of partitions was in Ferozepore 2,332 and in Hoshiarpur 2,471, while the mutations attested were 188,000 and 297,000 round, respectively.

9. A register of proposals for the reduction of lambardars was prepared for Moga, but not for the other tahsils. It is possible that with the increase of population and revenue the duties and emoluments of lambardars may have become adequate where they formerly were not so, but while the Settlement

Officer is right in insisting on the necessity for caution in reducing, the other side of the question must not be lost sight of, *viz.*, excessive sub-division of authority and insufficiency of rewards.

10. Settlement operations were completed with ease in the allotted time of 4½ years and cost very little more than the amount estimated in the forecast report. The enhancement of the demand, on the other hand, has much exceeded the expected amount, and in one year is more than the cost of settlement.

This result, for a district of 5 tahsils and a great variety of conditions, is ample testimony of the ability and power of organization which Mr. Currie brought to bear upon his work. Mr. Diack fully concurs in Mr. Fagan's commendation and considers the settlement one of the best as well as most successful of recent years.

11. One impression that is left by a perusal of these papers is that the district has grown enormously since the time (1884) when the old district of Sirsa was split up and divided between Ferozepore and Hissar, another district in which great development has occurred. Hissar has developed by the increase of irrigation from the Sirsa Branch of the Western Jumna Canal as well as from the Sirhind: Ferozepore by the development of the Sirhind Canal alone. But it contains upwards of 4,000 square miles, has a population of 960,000 or 30 per cent. higher than 30 years ago, and is above the average of Punjab districts. Lying in one division it abuts on three others and also on the Phulkian States on one side and on Bahawalpur on another. With the aid of sub-divisions and sub-tahsils it is still possible for one Deputy Commissioner to manage it, but in Mr. Diack's opinion it would be for the advantage of both districts and of the Jullundur and Ambala Divisions that an opportunity should shortly be taken of re-constituting the old Sirsa District. The new districts of Shaikhupura and Pak Patan are, however, more pressing wants.

12. The term of settlement has practically been decided, and it remains only for Government to pass formal orders on the subject in dealing with this report. The Financial Commissioner recommends that the term should be announced as 30 years, subject to the proviso that if within that time a new large canal is opened from the Sutlej the settlement of the villages commanded by it may be revised so that suitable rates may be imposed on irrigation from it.

13. It may seem early to offer hints for the conduct of the next settlement, but as the experience is fresh in the Financial Commissioner's memory he thinks it well to record his opinion that Ferozepore and Muktsar should then be assessed as tahsils, each with its share of the Mamdot jagir included, and that a separate assessment report for the jagir should not be prepared. At the same time the number of assessment circles in Muktsar and Mamdot may be considerably reduced for several of them are similar, and there is no great variety in the rates (paragraphs 50-51).

14. Operations in the Zira Tahsil were controlled under Mr. Currie by an Assistant Settlement Officer: at first by Mr. Shuttleworth and after his transfer to the charge of another settlement by Mr. Middleton. The work of the latter in Zira has been acknowledged by Government, and he has recently been given the charge of the Kangra Settlement. Kanwar Raghbir Singh was a useful and efficient assistant to the Settlement Officer. And credit must be given also to the subordinate members of the establishment who contributed so well to the punctual and satisfactory conclusion of the settlement.

I have the honour to be,

SIR,

Your most obedient Servant,

J. M. DUNNETT,

Junior Secretary to the Financial Commissioners, Punjab.

Commissioner's Review of the Final Settlement Report of the Ferozepore District.

1. The tract which has been under settlement has been fully described in Chapter 1 of the Report and it is here only necessary to summarise

General description.

the main features. In external shape the district is roughly an irregular oblong, some 100 miles in length and lying in a direction running from north-east to south-west. The central and south-eastern portions of the oblong, however, form an extensive inlet of foreign territory which includes the Faridkot State and small portions of Patiala, Jind and Nabha. The district is in this way divided into two nearly dis severed quadrilateral blocks, while the Nathana sub-tahsil forms an outlying enclave amid Native State jurisdictions. Like the adjacent Ludhiana District Ferozepore is destitute of any specially marked physical features, but it falls into three natural longitudinal divisions parallel roughly to the course of the Sutlej which forms its northern and north-western boundary. Adjoining the river is the Bet or in Fazilka the Hithar, which has the usual characteristic of a riverain tract with a generally hard alluvial clay soil. South-east of the Bet and at a slightly higher level lies the Lower Rohi or Mudki plain where the soil is for the most part light and sandy ; it is a continuation of the Lower Dhaia tract of Ludhiana. The southern boundary of the Lower Rohi is the Danda, a well marked bank or ridge, continued from the Ludhiana District, which runs in a south-westerly direction from end to end of the district and marks the southern-most limit of former changes in the course of the Sutlej. South of the ridge and at a considerably higher level than the Lower Rohi lies the Upper Rohi or Kot Kapura plateau. In the vicinity of the Danda and for some distance to the south the soil is a firm level loam, but becomes lighter and more sandy as one proceeds southwards. The local annual rainfall varies between the limits of 20 and 12 inches with a well marked gradual decrease towards the south and south-west ; while its amount and also its distribution both as regards to time and locality are alike uncertain. Under such conditions there is of course a wide scope for irrigation, and we accordingly find that 42 per cent. of the total cultivated area of the district is irrigated. Of this 6 per cent. is watered by wells with some assistance from canals, 28 per cent., all in the uplands above the Danda, receive perennial irrigation from the Sirhind Canal, while 8 per cent. is served by the system of the Grey Inundation Canals chiefly in the Bet and to some extent in the Lower Rohi tracts. Wells are confined for the most part to the Bet tract, though there are a good many in the Lower Rohi. They are comparatively rare in the uplands above the Danda, but their number is beginning to increase somewhat rapidly owing to the rise in water-level caused by percolations from the Sirhind Canal and to the introduction of the iron Persian wheel and buckets. The increase is specially noticeable in the vicinity of Moga. The soil of the unirrigated tracts of the district is generally light and sandy and suited for barani cultivation. Sikh Jats own practically half the cultivated area of the district. They are confined mainly to the upland tracts which are thus well off as regards the agricultural capabilities of the bulk of their population. For the rest the tribal composition of the proprietary body is very mixed. The riverain is held by various Musalman tribes, none of whom except the Arains have any claim to be good agriculturists. In the Rohi of Fazilka immigrants from Rajputana are an important element, but are not of very high rank as cultivators. There is no excessive pressure of population on cultivated area, and the average size of the proprietary holding throughout the district is everywhere ample. The previous rapid rate of increase in population was checked during the decade ending 1911 by the ravages of plague. The district is now fairly fully cultivated, only 9 per cent. of the total area being culturable waste, so that there is not much room left for further expansion. Lands irrigated and manured are frequently double-cropped ; the chief rotations being wheat, gram or fodder following maize on land served by the Sirhind Canal or gram following rice on the inundation canals. On unmanured

lands a single crop in the year is taken. Kharif to some extent alternating with the rabi, though towards the west and in the lighter soils generally the latter harvest occupies by far the larger proportion of the cultivated area. The proportion of failed crops is high, their average area being 18 per cent. of the total area sown, a figure which points to the insecurity of agricultural results.

2. The break up of the Mughal Empire left the tract of country now included in the district a prey to be partitioned among a number of petty warring chiefs. Its acquisition by the British took place gradually and piecemeal from the year 1885 onwards, the process not being completed until 1858. This circumstance together with alterations in district boundaries accounts mainly for the remarkably disjointed fiscal history of the district of which an account is given in paragraphs 11—14 of Mr. Currie's report. It may be noted that the recent settlement is the first one in which the whole area now included in the district has been dealt with simultaneously. Complete figures for the demands imposed at the various summary settlements are not available. In the following table the assessments of the first regular settlement and those, initial and expiring, of the revised settlement preceding that just completed are collected and compared. The figures include estimate of average annual canal advantage demand and the dates of the various settlements have been added:—

Tahsil.	FIRST REGULAR SETTLEMENT.		LAST REVISED SETTLEMENT.			Final assessment imposed in the recent settlement.
	Date.	Assessment.	Date.	Assessment.		
				Initial.	Expiring.	
1	2	3	4	5	6	7
		Rs.		Rs.	Rs.	Rs.
Moga ...	1853-54	2,40,996	1887-88	3,88,483	3,90,110	6,44,026
Ferozepore (proper).	1853-54	79,866	1888	1,28,077	1,27,327	1,64,656
Zira ...	1853-54	1,60,987	1888	2,42,938	2,37,182	3,18,098
Muktsar ...	1853-54	62,729	1893	1,71,666	1,72,063	2,73,727
Mamdot Jagir ...	1872-73	67,440	1892	1,33,721	1,36,004	1,56,904
Fazilka ...	*1857-63	57,918	1902	1,82,960	1,85,147	3,33,548
Total district ...	...	6,69,936	...	12,47,848	12,47,848	18,90,959

*Approximate only.

It may be said that the present new assessment of the district is roughly treble what it was some 60 years ago. Except in the riverain tracts where a comparatively higher incidence has been inherited from the days of native rule the assessments imposed at the last revised settlement were in all cases light, and have worked well throughout the District. No suspensions have been required except in the riverain tract, and these only occasionally, while remissions have been very trifling.

3. There has been a small increase of 5 per cent. since last settlement on the cultivated area of the district as a whole. There has been no change in Moga, while in Zira, Ferozepore and the Mamdot Jagir there has been an actual decrease. Muktsar and Fazilka only show increases; in the latter the proportion having been as much as 17 per cent. At the same time in the Moga, Muktsar and Fazilka Tahsils irrigation from the Sirhind Canal has been

extended to extensive areas which were barani at last settlement,— a fact which supplies one important reason for the large enhancements of assessment which those three tahsils have yielded. Contraction of cultivated area in the riverain tract has been accompanied by noticeable deterioration in soil, a result due in a large measure to unrestricted and excessive irrigation from the inundation canals. There has been no marked change in the character of the local agriculture though kharif has been to some extent replaced by rabi cultivation, especially in Muktsar and Fazilka. Between 1891 and 1911 population increased by 8 per cent., but in the first decade of this period the rate of increase was far higher than in the second, a result due as already remarked to the ravages of plague: population is now sufficient but by no means redundant. As elsewhere the prices of agricultural produce have risen in a remarkable manner during the time of the expired settlement, more especially in the latter part of it; the all round percentage of rise varying in different tracts from 50 to 60 per cent. The district is on the whole excellently furnished with communications both by rail and road, and there are several flourishing markets within the district and others outside it in close proximity to its borders so that the cultivator is ordinarily in a very satisfactory position for the profitable disposal of his surplus agricultural produce. The extension of canal irrigation and the rise in prices are reflected in the remarkable general increase in the value of land which the district in common with most others has witnessed during the last 20 years, the proportionate increase varying from double in Zira, Moga and Ferozepore to four-fold in Muktsar and Fazilka, though in parts of the riverain tract it has been comparatively little. Only 11 per cent. of the cultivated area of the district is under mortgage with possession, and of this no less than 8 per cent. is in the hands of members of agricultural tribes. On the whole there is no doubt whatever that except in the riverain tracts, the agricultural proprietors of the district generally are in a condition of great prosperity,—a conclusion which is supported by the large sums spent on dwelling houses, litigation, drink and the other objects which appeal to the prosperous Punjabi peasant.

4. Lands irrigated by the Sirhind Canal have been, assessed to land revenue on the method sanctioned for the Ludhiana District, a light

System of assessment.

nahri-parta being imposed in addition to the dry revenue. The *nahri-parta* assessment will be liable to periodical revision and adjustment in accordance with the proposed rules referred to in paragraph 59 of the report, orders on which have been passed. For lands irrigated by the Grey Inundation Canals the system introduced at last settlement of fluctuating canal advantage (*khush haisyati*) rates assessed harvest by harvest in addition to fixed dry rates has been maintained with the modification that the exemption of failed crops from assessment to the canal advantage rates which hitherto has been allowed in the kharif only has been extended to the Rabi. The classification of crops for the purpose of canal advantage assessment in the case of the Fazilka Tahsil has been assimilated to that approved for the other tahsils. For the Fazilka Hithar the system of entirely fluctuating assessment on mature crops sanctioned at last settlement has been maintained intact except for the abolition of the small fixed assessment on culturable waste. The system of canal advantage assessment accordingly does not apply to this circle.

5. The factors of the half-net assets estimate based on produce have been fully discussed in paragraphs 23-28 of the report, and it is needless to go

The produce estimate.

over the same ground in any detail here. The cycle of years adopted for the purposes of the estimate differed in the various tahsils and the resulting statistics were generally not in excess of the results of the ideal normal year. The assumed rates of yield were fully discussed in the assessment reports. They were I think generally suitable and certainly cannot be regarded as excessive. The prevalent rates of kind rent and the practice regarding payment of canal rates, the realization of extra dues by landlords and the adjustment of payments to *kamins* vary a good deal, and few general statements about them are possible. These subjects were suitably dealt with in the assessment reports and scarcely need discussion here. The sanctioned commutation prices were in

all cases higher than those approved for Ludhiana, but were lower than the average of the rural prices prevailing in the quinquennium ending 1909-10. On the whole the produce estimate and the estimate of "true" half-net assets derived from it may, I think, be accepted as satisfactory approximations which certainly do not as a whole err in the direction of excess. The area held on true normal cash rents is too small to supply any very reliable data for assessment purposes.

6. The following table shows the assessments actually imposed including the portions deferred for a term of years as well as the estimated average annual fluctuating demand :—

Tahsil.	Expiring demand including average fluctuating.	Estimated half-net assets.	Assessment actually imposed including average fluctuating.	Percentage of increase, column 4 on column 2.	Percentage of half-net assets column 4 on 3.	Percentage of column 4 on estimated value of gross produce.	INCIDENCE PER ACRE OF AMOUNT IN COLUMN 4 ON		Amount of deferred assessment included in column 4.
							Cultivated area.	Measured prop area.	
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.	Rs.				Rs. A. P.	Rs. A. P.	Rs.
Moga ...	3,90,110	1,612,000	6,44,026	65	40	9.6	1 5 6	1 8 2	1,21,590.
Ferozepore (Proper) ...	1,27,327	4,30,000	1,64,656	29	38	7.1	1 0 7	1 2 6	11,520.
Zira ...	2,37,182	7,70,000	3,18,038	34	41	8.0	1 5 2	1 4 10	19,854.
Mamdot Jagie ...	1,36,004	3,18,000	1,56,904	15	48	7.4	0 15 8	1 1 7	6,461
Muktsar (Proper) ...	2,72,083	7,25,000	2,73,727	59	38	7.2	0 10 9	0 14 1	45,827
Fazilka ...	1,85,147	8,87,000	3,33,548	80	37.5	5.4	0 6 11	0 9 8	88,549
Total District ...	12,47,843	47,42,000	1,890,959	52	40	7.6	0 13 8	1 0 8	2,93,601

In applying for sanction to the Government of India in August 1910 for a revision of the assessment of the district the Punjab Government in agreement with the Financial Commissioner anticipated a minimum enhancement of Rs. 3,36,000 or 28 per cent., at the same time expressing the opinion that the actual enhancement would probably be not less than Rs. 3,80,000 or even Rs. 4,00,000. The first figure was accepted by the Government of India. Subsequently in 1912 detailed proposals for the reassessment of the Moga Tahsil were submitted to Government which involved an enhancement of 64 per cent. In view of the extent to which the latter figure exceeded the proportion of enhancement anticipated in connection with the forecast the proposals were referred to the Government of India and were accepted on condition that the enhancement for the whole district should not substantially exceed 40 per cent. Again in 1914 when the proposals for the Muktsar Tahsil came under the consideration of Government it was found that the minimum possible enhancement was 58 per cent. This combined with the large enhancement then anticipated in the case of the Fazilka Tahsil necessitated a further reference to the Government of India who accepted the proposals for Muktsar, but directed that the proposals to be framed for the Fazilka Tahsil should be submitted to them before the revised demand was announced. This was accordingly done, and an assessment of Rs. 3,33,000, as proposed by the Financial Commissioner and accepted by the Punjab Government, was sanctioned for the latter tahsil. The enhancement of assessment for the whole district which has been ultimately obtained is thus, it will be seen, very largely in excess of that anticipated in the forecast report prepared in 1910 and very

considerably above that indicated as appropriate by the Government of India in 1913. Notwithstanding this it is perfectly obvious that an assessment which absorbs no more than 40 per cent. of a very moderate estimate of half-net assets and less than 8 per cent. of the estimated value of the whole gross produce cannot be regarded as other than very lenient, and the more so when over 15 per cent. of that assessment, equivalent to 46 per cent. of the total enhancement involved, is deferred for a term of years. The district affords, I think, a conspicuous instance of the general, and possibly undue, leniency of our land revenue assessments in tracts of comparatively recent development. The new assessment was well received and there can, I think be little doubt that a larger enhancement was expected and would have been accepted without demur. Muktsar and Fazilka have, I think got off lightly as compared with Moga, a result due largely to the *a priori* limit in the proportion of enhancement laid down by the Government of India. The inherited inequality of assessment pitch between the riverain and the more recently developed upland tracts has not been fully eliminated. There have been very few appeals to the Commissioner and Financial Commissioner. In addition to those shown in paragraph 53 of the report there were 10 appeals to the Commissioner from the Fazilka Tahsil of which 7 were rejected and 3 accepted.

7. Mr. Currie's detailed village inspections were careful and thorough, and the notes recorded by him are very detailed and complete. Much trouble and care was evidently taken over the important work of the internal distribution or *bachh* of the revenue over holdings, and the results may I have no doubt be accepted as satisfactory, but I am disposed to think that the distribution of the *nahri-parta* assessment over total cultivated area whether canal irrigated or not which has been allowed in parts of Moga and elsewhere may possibly produce difficulties in the future.

8. In chapter V of the report Mr. Currie has dealt very fully with the subject of the record-of-rights, and it is not necessary to repeat details here. The record-of-rights. Out of the total number of estates to be dealt with, 1,596 in number, map correction alone was carried out in 76 per cent. Of the rest all were completely remeasured except 42 in which remeasurement and map correction were combined. All riverain estates were completely remeasured on the basis of a skeleton traverse survey carried out by the Survey Department while much trouble was taken with, I believe, satisfactory results to secure the proper adjustment and agreement of riverain boundaries, the latter operation being complicated in Fazilka by an unfortunate difference between the local karam and that in use on the opposite side of the river. In other parts of that tahsil considerably more map-revision was found to be necessary than had been originally contemplated. The intermixture of land held in occupancy right with that held as a tenant-at-will by the same individual to which reference is made in paragraph 37 of the report is a very real difficulty which presents itself in an acute form in many revenue judicial suits in which the acquisition of occupancy rights is in issue. Every effort should be made to encourage the private partition of such holdings between the landlord and tenants as the existing law provides no machinery for partition otherwise. The mutation work dealt with in the course of the settlement was heavy, over 188,000 cases having been decided, of which more than 80,000 belonged to the Moga Tahsil alone. The record work was carried out with satisfactory dispatch measurements having been completed in all tahsils in 18 months or a little more, except in Fazilka where they lasted nearly two years, while successful efforts were made to secure that attestation should keep pace with field work. On the whole, there is I think every reason to think that the revised record-of-rights is generally a very accurate one.

9. A revised set of alluvion and diluvion rules have been sanctioned. Their application will require the careful attention of the Collector and of the Revenue Assistant, and the same applies to the *nahri-parta* rules orders on which were conveyed in Junior Secretary to Financial Commissioner's No. 2915

of 15th April 1915, to Commissioner. Rules have also been drawn up and approved for the remission of revenue on lands affected by *kallar*. With reference to paragraph 62 of the report it may be noted that it has been decided (Junior Secretary to Financial Commissioners' No. 2439 of 29th March 1915, to Commissioner) that the rules contained in paragraph 558, Land Administration Manual, apply in full to this district. A scheme dealing with future suspensions and remissions of land revenue has been prepared and approved. The revision of revenue assignments received careful attention and new and up-to-date registers have been prepared. With reference to the remarks regarding the petty jagirdars of Mahraj made in paragraph 65 of the report it should be noted that the Punjab Government in its Nos. 1-2 of 9th January 1915, to Junior Secretary to the Financial Commissioners, has recognised in their favour a power of alienation of their jagir rights. Additions have been made to the strength of the kanungo and patwari staff of the district, the former having been increased by 4 Field Kanungos and the latter by 42 Patwaris and 3 Assistants. The Zaildari and Sufedposhi Agency has also been re-organised and the system of graded *inams* has been introduced. The sanctioned numbers are as follows for the whole district :—

GRADE.	ZAILDARS.		SUFEDPOSHERS.	
	No.	Annual rate of <i>inam</i> .	No.	Annual rate of <i>inam</i> .
		Rs.		Rs.
I	24	250	32	60
II	45	200	40	45
III	26	150	34	80
Total ...	95	...	106	...

The distribution of the various grades as between tahsils has been fixed. Mr. Currie submitted a very complete report on the management and administration of the Grey Inundation Canals with proposals for their improvement. On this orders have been passed and the new system is being introduced.

10. In the orders of Government on the Assessment Report of the Fazilka Tahsil it was decided that the term of Settlement for that tahsil should be 30 years, and it was directed that the same term should apply to the rest of the district unless the Financial Commissioner saw reason "to recommend a shorter term for any particular tract." A term of 30 years for the whole district was subsequently publicly announced by His Honour the Lieutenant-Governor. The decision accentuates the extreme moderation of the new assessment on which I have already dwelt.

11. Settlement operations began in November 1910 though little beyond preliminary work was accomplished until April 1911; they were finished in March 1915 so that the Settlement took nominally four and-a-half and actually four years to complete. The area under settlement exceeded 4,000 square miles and comprised five tahsils, while no less than six assessment reports were prepared within a period of two years 1912-14, five by Mr. Currie personally and one by his assistant, Mr. Middleton. The net expenditure on settlement operations was $4\frac{1}{2}$ lakhs round which is considerably less than the enhancement of roughly Rs. 6,20,000 which will ultimately be secured in the annual land revenue. The above results are, I venture to think, eminently satisfactory and reflect the greatest credit on Mr. Currie and staff who worked under his orders and supervision.

12. Mr. Currie's assessment reports have already earned the commendation of Government. His work throughout has been arduous and unremitting, and has evinced in a high degree, care, thoroughness and judgment. He is I consider entitled to great praise for the efficient organisation, promptitude and energy with which he has carried out the settlement. Kanwar Raghbir Singh, the Extra Assistant Settlement Officer, by quiet, hard and reliable work contributed in no small degree to the success of the operations and has shown himself to be a capable and painstaking officer, while Mr. Middleton did valuable work in connection with the assessment and revision of records of the Zira Tahsil. The other officers mentioned by Mr. Currie are deserving of commendation.

P. J. FAGAN,

Commissioner, Jullundur Division.

The 28th August 1915.





सत्यमेव जयते

List of corrections to the Final Settlement Report of the Ferozepore District.

Tahsil.	Page of the report.	AS SHOWN IN THE REPORT.	
		Revenue.	
		Total of old demand.	Total of final new demand.
		Rs.	Rs.
Ferozepore ...	xxvii	1,27,327	1,54,656
Correct figures ...	...	1,27,337	1,54,656
Page of the report.	Tract.	CULTIVATED AREA.	
		As given in the Final report.	Correct figures.
		Acres.	Acres.
22	Grey Canal Circle fluctuating <i>khush hasiyati</i>	85,000	8,500



Addendum.

FINANCIAL COMMISSIONERS' OFFICE.

To the rules for the remission or imposition of nabri paria on lands from which canal irrigation has been withdrawn or to which it has been extended *add* the following schedule of rates referred to in Assessment Rule VIII :—

SCHEDULE.

FEROZEPUR DISTRICT.			
<i>Tahsil.</i>	<i>Circle.</i>	<i>Nabri Paria.</i>	
		Rs. A. P.	
Moga	<div> { Rohi Mahraji Grey Canals </div>	<div> ... 0 6 0 per acre. ... 0 7 0 " ... 0 8 0 " ... 0 8 0 " </div>	
Ferozepore	Rohi	... 0 8 0 "	
Muktsar	<div> { Rohi Utar Kot Kapura Utar Hithar Mamdot Jagir Rohi.. </div>	<div> ... 0 4 0 " ... 0 4 0 " ... 0 4 6 " ... 0 4 6 " </div>	
	<div> { Rohi Utar </div>	<div> ... 0 2 6 " ... 0 1 0 " </div>	
	<div> { Rohi Utar </div>	<div> ... 0 2 6 " ... 0 1 0 " </div>	
	<div> { Rohi Utar </div>	<div> ... 0 2 6 " ... 0 1 0 " </div>	
Fazilka	<div> { Rohi Utar </div>	<div> ... 0 2 6 " ... 0 1 0 " </div>	
LUDHIANA DISTRICT.			
Jagraon Tahsil and Ludhiana Powadh.	...	... 0 8 0 "	
All other circles	...	... 0 6 0 "	



FINAL REPORT
OF THE
REVISED SETTLEMENT (1910-14).
OF THE
FEROZEPORE DISTRICT.

CHAPTER I—GENERAL DESCRIPTION.

1. The Ferozepore District lies along the southern bank of the Sutlej. It is composed of two quadrilateral blocks of country, running back for a distance of 30 to 40 miles from the river, composed respectively of the Zira and Moga and the Muktsar and Fazilka Tahsils; these two blocks are separated by the enclave of the Faridkot State and are only connected by the narrow strip from 10 to 15 miles wide which forms the Ferozepore Tahsil. In addition to the main part of the district there is an outlying block of 37 villages forming the Nathana Sub-tahsil and lying in the middle of the Phulkian States and Faridkot. In the middle of the Moga Tahsil Proper there is a block of villages, known as the Chirakh *ilaka*, which belongs to the Khalsia State. The northern boundary of the district is practically formed by the Sutlej which separates Ferozepore from the Jullundur, Lahore and Montgomery Districts and the Kapurthala State. On the east the district marches with Ludhiana, while to the south lie the Phulkian States, Faridkot, the Hissar District and Bikaner; to the west lie the Bikaner and Bahawalpur States. The district has a maximum length of about 100 miles, while the breadth varies from 10 miles to 60 miles. In the course of the settlement two new estates were formed, while several pairs of estates have been combined into single estates. In consequence of these changes the district now contains 1,596 villages. The total area of the district as brought out by the settlement measurements is 4,054 square miles, while according to the Trigonometrical Survey the area is 4,286 square miles. The cultivated area is 3,450 square miles. The population in 1911 was 959,657.

2. The district falls into three main natural divisions which run parallel to the river. The first is the Bet adjoining the river which has a hard alluvial clay soil. It is traversed by various depressions which mark different courses taken by the river in comparatively recent times. The principal of these is that known as the Sukkar Nala which, starting near the Ludhiana border, runs in a sinuous course throughout the tract to below Mamdot.

Behind the Bet is a sandy strip which may be called the Lower Rohi or Mudki plain; it lies at a slightly higher level than the Bet, and in places the division between the two belts is marked by a distinct bank, but generally the change in the character of the soil is all that marks the changes from one tract to the other.

Behind the Lower Rohi and separated from it by the Danda lies a plain of level fairly firm loam which may be called the Upper Rohi or Kot Kapura plateau. The Danda itself is a hard ridge or bank generally ten to fifteen feet high which marks the most southern course of the river within historical times. The southern portion of the Upper Rohi may almost be considered as a separate tract as there the country becomes undulating, and there are large ridges of sandhills, while the soil as a whole is light and sandy.

3. For administrative purposes the district is divided into five tahsils, *viz.* Zira,, in the east along the river with Moga behind it, then Ferozepore in the middle succeeded by Muktsar and Fazilka which both have comparatively small river frontages. There are also two sub-tahsils, one at Nathana which comprises the detached block of villages, formerly belonging to the Moga tahsil, but recently transferred to Ferozepore Tahsil, while the other with headquarters at Abohar comprises the south-western villages of the Fazilka Tahsil.

Administrative divisions.

4. For assessment purposes, however, as a consequence of the historical growth of the district the district is divided into six units, *viz.*, Moga, Zira and Fazilka Tahsils, the Mamdot Jagir, which lies partly in Ferozepore and partly in Muktsar, and the remaining portions of the Ferozepore and of Muktsar Tahsils.

Assessment divisions.

5 It was at first determined to maintain the existing assessment circles absolutely unchanged, and the few changes I proposed were not approved. These orders were, however, afterwards modified, and I will deal with the circles as finally constituted.

Assessment circles.

Here there were formerly two circles, Moga Proper and Mahraj, the detached block of villages, that compose the Nathana Sub-tahsil. Owing to the recent introduction of irrigation from the Grey Canals into part of Moga Proper and the Financial Commissioner's orders that a separate series of years were to be employed for the produce estimate in these villages, it was ultimately decided to split up Moga into two circles, *viz.*, Rohi and Grey Canals, while Mahraj was retained unchanged. I may here note that Mahraj has now been transferred to Ferozepore Tahsil.

Moga Tahsil.

Zira Tahsil.

The old Bet and Rohi circles were maintained unchanged.

Ferozepore Proper.

The old Bet and Rohi circles were maintained unchanged.

This tract is divided between the Ferozepore and Muktsar Tahsils. The Rohi and Dhora circles which lie in both tahsils were retained. The Utar and Hithar circles which previously ran parallel to the river for the whole length of the tract were divided transversely and two new circles, the Mamdot Bet and the Jalalabad Bet, were formed; the Mamdot Bet comprises the parts of the old Utar and Hithar circles lying in the Ferozepore Tahsil, while the Jalalabad Bet is the Muktsar portions of the old circles. I may here note that in my opinion the five villages of the Dhora circle which fall within the Muktsar Tahsil boundary might more appropriately be included in future in the new Jalalabad Bet circle.

Mamdot Jagir.

The old circles were retained unchanged. They are the Rohi, Muktsar Utar, Kot Kapura Utar, Hithar and Guru Har Sahai. The two Utar circles

Muktsar Proper.

I proposed to amalgamate, but my proposals was not approved, and in view of the difference in the assessment rates it would probably now be inadvisable to amalgamate them.

Fazilka Tahsil.

The old circles, *viz.*, Rohi, Utar and Hithar were retained unchanged.

The nomenclature of the circles is somewhat confusing as the words Rohi and Utar and Hithar mean somewhat different things in different parts of the district. I will therefore group the circles according to the three natural divisions into which the country falls. The first of those divisions is the Upper Rohi or Kot Kapura plateau lying above the Great Danda or old bank of the Sutlej; in this lie the Moga Rohi, the bulk of the Grey Canals circle, Mahraj, a part of Zira Rohi, Muktsar Rohi, Muktsar Utar, Kot Kapura Utar and Fazilka Rohi.

The second division is the Lower Rohi or Mudki plain lying between the Great Danda and the Lesser Danda; this comprises a part of the Moga Grey Canals circle, the bulk of the Zira Rohi, Ferozepore Rohi, Mamdot Rohi, Muktsar Hithar, the bulk of Guru Har Sahai and the Fazilka Utar.

The third tract is the riverain which lies along the river and below the Lesser Danda; this comprises the Bet circles of Zira, Ferozepore, Mamdot, Jalalabad, the Mamdot Dhora, part of Guru Har Sahai and the Fazilka Hithar circle.

6. The local rainfall varies between wide limits. There is a marked

Rainfall.

Moga	...	...	19.15
Zira	...	...	18.98
Ferozepore	...	...	17.17
Jalalabad	...	...	12.44
Fazilka	...	...	11.09
Muktsar	...	...	13.19
Nathana	...	...	12.81

tendency for the rainfall to decrease as one progresses westwards; roughly the decrease is at the rate of an inch every ten miles. As the rainfall statistics in the assessment reports are for different series of years I give in the margin* a table showing the average rainfall for

each of the principal raingauges of the district for the twenty years ending May 1914. This shows that the rainfall ranges from about 20 inches at Moga and Zira to 11 or 12 inches at Fazilka in the west and Nathana in the south. The monsoon generally does not commence till the end of June and the early monsoon showers are often extremely local; most of the rainfall occurs in July and August and the important September rains are uncertain, especially in the western part of the district. Usually there is but little rain between the beginning of October and the end of December, but two or three inches of rain usually fall in January and February. The rainfall varies between very wide limits as may be seen from the following table which gives the maximum and minimum rainfall for each gauge in the last twenty years:—

Raingauge.	Maximum.		Minimum.	
	Year.	Inches.	Year.	Inches.
Moga	...	1900-01 34.96	1896-97	8.24
Zira	...	1894-95 37.35	1901-02	10.05
Ferozepore (City)	...	1908-09 37.74	1896-97	6.47
Jalalabad	...	1908-09 36.58	1899-1900	2.63
Fazilka	...	1908-09 34.68	1899-1900	4.36
Muktsar	...	1894-95 23.51	1899-1900	4.48
Nathana	...	1908-09 29.71	1901-02	6.39

The rainfall, especially in the case of the winter rains and the early monsoon showers, is often very local. It is fortunate that practically the whole of that part of the district which is solely dependent on the rainfall has a light and sandy soil which will produce a crop, if it receives three or four inches late in August and September, supplemented by about a couple of inches in January and February.

7. With a rainfall so uncertain as that of Ferozepore there is obviously

Irrigation.

a large scope for irrigation which is both protective and productive. The uplands are irrigated by the Abohar and Bhatinda branches of the Sirhind Canal, while the lowlands except for a narrow belt adjoining the Danda are irrigated by the district system of inundation canals, known as the Grey Canals, and by wells. Wells are also used to some extent in the uplands in Moga, but elsewhere the depth to water is so great as to render well irrigation unprofitable.

In the Bet tract all the wells are of the Persian wheel type and irrigate from 15 to 20 acres; in the Rohi the wells were mainly of the bucket and pulley type, but since the introduction of the iron Persian wheel this type has become more widely used. The average area irrigated by the Rohi wells is less than in the Bet as they are largely used merely for the purpose of supplementing the canal supply or to grow some 'green fodder' for the cattle in years of short rainfall.

In all by these various means 27 per cent. of the cultivated area is irrigated in Moga, 36 per cent. in Zira, 30 per cent., in Ferozepore Proper, 58 per cent in Mandot Jagir, 41 per cent. in Muktsar Proper and 55 per cent. in Fazilka.

CHAPTER II—FISCAL HISTORY.

8. The early history of the district is wrapped in obscurity. The eastern portion of the tract seems in Moghal times to have been included in the Tihara *pargana* of the Subah of Sirhind, while the western part was in the Subah of Multan, the *pargana* of Muhamedkot mentioned in the Ain-i-Akbari being usually identified with the present Mamdot. Probably, however, much of the district was at that time a desolate waste.

With the decline of the Moghal Empire the district fell into the hands of a number of petty warring chiefs. The Rais of Raikot and the Manj Nawabs of Kot Isa Khan who had been semi-independent in Moghal times were ousted by various Sikh chiefs. Besides the Lahore power the most important were the Ahluwalia chief, who held most of the Bet above Ferozepore, and the Faridkot Raja, who held the Sultan Khanwala *ilaka* and Mudki. Ferozepore and a small tract immediately surrounding it was held by a petty Sikh chief. Along the river to the west of Ferozepore lay the Dogar country which no ruler succeeded in holding for any length of time till the Hassanzai Pathans established themselves at Mamdot. Muktsar was held by the Lahore Government, but the Kotbhai *ilaka* was held by the chiefs of Arnauli and Jhumba. These chiefs together with the Phulkian chiefs held the east of what is now the Fazilka Rohi. The rest of the Rohi was a waste prairie over which roamed bands of Mussulman graziers and cattle thieves. The west of the Fazilka riverain known as the Wattu *pargana* was held by the Nawab of Bahawalpur, while the Bahak *pargana* was held by the Mamdot Pathans.

9. The formation of the Ferozepore District began with the annexation of Ferozepore and a few neighbouring villages in 1835 on the death of Sardarni Lachman Kaur. In 1837 the present Fazilka Rohi was annexed as a result of determining the boundary of the Bhatti country with the Phulkian States, but the boundary with Patiala was revised in 1856. In 1844 the Wattu *pargana* was acquired from the Nawab of Bahawalpur in exchange for territory on the Scinde border. The remainder of the district together with Chirakh was annexed in 1845-46 after the First Sikh War, but the Nawab of Mamdot was made a ruling chief for his services. About this time the Sultan Khanwala *pargana* was taken from the Faridkot Raja who received in exchange part of the Kot Kapura *ilaka*. Chirakh was restored to the Khakhsia State in 1855. Badhaur was taken over in 1854, but restored to Patiala in 1858. In 1856 the territories of the Nawab of Mamdot were annexed in consequence of his misgovernment, but in 1858 when the Sirsa District was constituted the Bahak *pargana* was taken from the Ferozepore and added to the Fazilka Tahsil. The district only assumed its present form in 1884, when the present Fazilka Tahsil composed of the old Fazilka Tahsil and a part of Dabwali Tahsil was added to it on the abolition of the Sirsa district. Since then there has been no change in the limits of the District, except along the river, where certain villages were received from Montgomery, Lahore and Jullundur and others transferred to those districts in connection with the laying down of a permanent boundary along the river between 1902 and 1904.

10. No information is available as regards the method of revenue collections used by the Moghals in this district. As regards the Sikhs it seems that the Lahore and Ahluwalia Governments used to take their revenue in cash but the sum was only fixed for short periods; they sometimes reverted to collections in kind especially in the Naipal and Dogar tracts. The Raja of Faridkot and the Sardarni of Ferozepore took their revenue in kind. The

Guru of Guru Har Sahai and the Bhaïs of Jhumba and Arnauli in the Kot Bhai *ilaka*, who received the status of *jagirdars* at annexation, continued to collect the revenue assigned to them in kind up till the 1872 settlement.

11. Summary Settlements were made for the various parts of the district as they came into British hands. The eastern part of the Moga and Zira Tahsils which when first annexed was included in the old "Wudnee" (Badhni) district was summarily settled by Mr. Campbell. No definite information is forthcoming regarding this or the Summary Settlement of the rest of the Ferozepore, Zira and Moga Tahsils. The assessment were based on the collections of our Sikh predecessors, with the result that the Muhammadan Bet was assessed considerably higher than the Sikh uplands, an inequality that has not yet been eliminated. The Summary Settlement of Ferozepore itself were made apparently by Sir Henry Lawrence.

The Summary Settlement of the Muktsar *pargana* was carried out in 1846 by Mr. J. Danniell, but the Jhumba Kot Bhai and Guru Har Sahai *ilakas* being *jagir* were left unassessed. The Muktsar *chak* was assessed at 5 annas per *ghumao* and Kot Kapura at 7 annas. There was a good deal of trouble in this tract, but most of the villages came round at last, and they appointed one Hira Mal to be a sort of contractor on their part. But they had scarcely done so when another dispute arose. It was never intended that the villages should pay 7 annas per *ghumao* all round. It was intended that the good villages should pay 8 annas, the middling ones 7 annas and the poor ones 6 annas. The good villages refused to allow the contractor to take 8 annas from them and were still petitioning and appealing when suddenly 83 out of the 117 were made over to the Raja of Faridkot. The Summary Settlement was intended to last three years, but continued till the Regular Settlement.

When Mamdot was annexed lump cash sums were imposed for the first two years and the villages left to distribute it among themselves. In 1856 a Summary Settlement was made by Mahomed Sultan Khan, Extra Assistant Commissioner, generally known as Sultan Mahmud. The assessment seems to have been a very fair one.

Pargana Bahak was apparently never summarily settled. The Malaut *pargana* of Fazilka was summarily settled by Captain Thoresby in 1837-38. *Pargana* Wattuan was summarily assessed by Mr. Vans Agnew in 1844. Other estates seem to have been summarily assessed as they were colonised.

The sketch that has been given of the steps by which the district has assumed its present shape shows that any comparison with the assessment made at the Summary Settlements and those made later would be fallacious. All that can be done is to give a brief account of the Regular Settlements of the six assessment units of the district and the Revised Settlements that have been made prior to the present settlement, which is the first to deal with the district in its present shape as a whole.

12. Mr. Brandreth carried out the Regular Settlement of the Moga and Zira Tahsils and Ferozepore Proper and the Muktsar *pargana*, that is to say, the whole of the old Ferozepore District excluding the Mamdot Jagir in 1853-54. He also settled the Bahak *pargana* in 1856-57. This settlement ran for thirty years except in Muktsar where having been originally sanctioned for ten years it ran till 1872-73 when it was revised by Mr. Purser who at the same time carried out the first Regular Settlement of the Mamdot Jagir. The remainder of the present Fazilka Tahsil was settled by Mr. J. H. Oliver between 1857 and 1863.

13. Mr. E. B. Francis revised the assessment of the whole of the old Ferozepore District between the years 1884 and 1891. The term sanctioned was twenty-five years for the three northern tahsils and twenty years for

Muktsar and Mamdot Jagir. Mr. Francis raised the assessment considerably, the percentage of increase being 61 per cent. in Moga, 52 in Zira, 59 in Ferozepore, 78 per cent. in Mamdot and 69 in Muktsar. These figures are calculated on a comparison of the total demand of the last year of the expiring settlement with that of the first year of the new demand including *khush haisiyati*, or water advantage rate on irrigation done by the Grey Canals, which was imposed for the first time by Mr. Francis.

The first revision of the settlement of the Fazilka Tahsil was carried out by Mr. (now Sir James) Wilson in 1883. Owing to the alteration in the boundaries of the tahsil which took place when the Sirsa District was broken up and the Fazilka Tahsil was transferred to Ferozepore, it is impossible to say what the total increase taken by Mr. Wilson was but the general increase in the Rohi circle as then constituted was 81 per cent., in the Utar 47 per cent. and in the Hithar circle, which was mostly placed under a system of fluctuating assessment, it was estimated to be about 26 per cent. The introduction of the Sirhind Canal made the assessment nominal in the Rohi and it was light in the Utar, but owing to a succession of bad harvests suspensions amounted to 9 per cent. of the annual demand and remissions to $1\frac{1}{2}$ per cent. The main features of Mr. Wilson's settlement in Fazilka were the grant of proprietary rights to the lessees of the farmed villages and of occupancy rights to their tenants and the great extension of the fluctuating system in the Hithar circle. Mr. Wilson's settlement was sanctioned for a period of 20 years.

The Fazilka tahsil was resettled in 1900-01 by Mr. C. M. King. He extended the fluctuating system to all the villages of the Hithar circle and introduced the *khush haisiyati*, or water advantage rate, on the Grey Canal irrigation in the Utar circle. His assessment resulted in an increase of nearly 64 per cent. in the tract as a whole the enhancement amounting to 69 per cent in the Rohi, 80 per cent. in the Utar and 19 per cent. in the Hithar according to his estimate of the proceeds of the fluctuating system.

14. Despite the large increases taken by Mr. Francis his assessments were very light except in the Bet circles and have worked well, though suspensions and remissions have been required in a few Bet villages in consequence of the decline in cultivation due to the spread of *kallar* and weeds as a result of over-irrigation from the Grey Canals. Perhaps the most striking feature of this settlement was the careful discrimination with which the demand was distributed over the different estates.

Mr. King's assessment was a light one, and the incidence was still further lightened by the extension of cultivation consequent on better rains. Suspensions were given on one occasion in the Utar and once in the Hithar. No remissions were required.

In the whole district Rs. 2,28,158 have been placed under suspension during the currency of the old assessments, but remissions only amount to Rs. 44,241 or 4 per cent. of the average demand for one year.

CHAPTER III.—DEVELOPMENT AND DATA FOR ASSESSMENT.

15. The Ferozepore District is now very extensively served with railway lines, being in direct connection with Lahore and Delhi by the North-Western Railway *via* Bhatinda. The line from Lahore to Ferozepore was opened in 1887, when the Kaiser-i-Hind Railway bridge was opened over the Sutlej river. The connection with Bhatinda was previously by the narrow gauge Rewari-Ferozepore Railway but broad gauge connection was established

Francis' Final Report p. ix.

Final Report, para. 97.

Working of the last settlement.

Communications.

(a) Railways.

in 1899. The Rajpura-Bhatinda line, opened in 1889, runs through the Nathana Sub-Tahsil. The main line of the South Punjab Railway opened in 1897 runs through the south of the Muktsar and Fazilka Tahsils and gives direct connection with Karachi *via* Samasata. The same company's Macleod Ganj Road Ludhiana extension opened in 1905 passes through the Moga, Ferozepore, Muktsar and Fazilka Tahsils, and gives connection with the main line to Karachi *via* Macleod Ganj. The new Jullundur Doab Railway, also the property of the South Punjab Railway Company, runs from Ferozepore direct to Jullundur passing through the Ferozepore and Zira Tahsils and crossing the Sutlej by a bridge above Harike Ferry. This line was opened as far as Makhu in 1913, but the bridge was not completed and through running established till May 1914. Besides these lines which are all broad gauge there is a narrow gauge branch, opened in 1885, of the Rajpura-Malwa Railway running from Bhatinda *via* Kot Kapura and Muktsar to Fazilka while the narrow gauge Jodhpur-Bikaner Railway also passes through the southern corner of the Fazilka Tahsil. Ferozepore is thus an important junction, while there are few villages which are not within 20 miles of a railway station.

The eastern part of the district is well supplied with metalled roads.

(b) Roads.

The Grand Trunk road runs from the Sutlej through the Ferozepore and Moga tahsils to the border of the Ludhiana District. At Moga metalled roads take off it running to Bagha Purana and on to Kot Kapura with a total length of 20 miles in the Moga Tahsil, and to Dharmkot in Zira (10 miles) with a branch to Kot Isa Khan (6 miles). From Talwandi Bhai Railway Station a metalled road runs to Zira (9 miles). The following roads are also being metalled—Nathana to Bhuchho Mandi (9 miles), Moga to Badni (10 miles) and Giddarbaha Market to Lambi (11 miles).

The principal *kacha* roads running from Ferozepore are the Fazilka road, the Karnal road, the old Ludhiana road through Zira, the Makhu road, the Muktsar road and the Kot Kapura road; the old Sikh road from Patiala to Harike Ferry runs across Moga and Zira; from Fazilka the old Salt road, known as the Permit Sarak leading from the river, runs through Malaut to Sirsa and another road runs to Sirsa through Abohar, while the Ferozepore road is continued towards Bahawalpur; from Muktsar there are roads to Jalalabad, Malaut and Bhatinda. These roads are suitable for wheeled traffic in dry weather, except in a few places, especially in Fazilka, where they are obstructed by sand drifts. There are the usual roads leading from village to village. The Sutlej is crossed by numerous ferries, but is now little used for boat traffic.

16. The district is well supplied with markets where the zamindars can easily dispose of their produce and get the full value of it. Ferozepore with

Markets.

its large city and cantonment affords a ready market for the agricultural produce of the surrounding tract. There are flourishing grain markets at Moga, Abohar and Muktsar, while Fazilka in addition to its grain trade is the largest wool market in the province. There are also markets which do a certain amount of trade at Jalalabad, Bhuchho Mandi, Gidarbaha and Talwandi Bhai. Much of the produce of the district, however, goes to markets in the neighbouring districts and Native States; the principal of these are Jagraon (Ludhiana District), Dabwali Mandi (Hissar District), Kot Kapura and Goniana (Faridkot) Bhatinda (Patiala), and Jaito and Rampura Phul (Nabha). With all these markets and the ample railway facilities described in the preceding paragraph the zamindar has no difficulty in disposing of his produce and derives full benefit from the rise in prices.

17. The population is distributed in well marked divisions. The uplands are held almost entirely except in Fazilka by Jat Sikhs, who are a fine

Agricultural population.

body of men, excellent farmers and shrewd and enterprising, though unfortunately somewhat addicted to strong drink and turbulence. The riverain is inhabited by various Muhammadan tribes; immediately along the river, going

down stream from the Ludhiana border, lie the Gujars, Nipals and Dogars in Zira; in Ferozepore and part of Muktsar and Zira the river side population is entirely Dogar with a few Mahtams in the Mamdot Jagir; in the west of Muktsar the population is Wattu, while in Fazilka it is Wattu and Bodla; all the riverside tribes are indifferent cultivators and addicted to cattle thieving. The inland portion of the Bet is mainly held by Arains, who may be described as an industrious body of market-gardeners who excel in the cultivation of valuable crops with the aid of wells. In Fazilka the population is very mixed; in the east it is largely Jat Sikh, but in the south and west of the Rohi it is composed of Muhammadan Rajputs, Bagri Jats, Kumhars and Suthars and Bishnois who are all poor cultivators. Muhammadan Rajputs are also numerous throughout the Lower Rohi or Mudki plain. The importance of the Sikh Jat may be gauged by the fact that they hold no less than 49 per cent. of the cultivated area of the district, while the Rajputs come next with 12 per cent., no other tribe holds more than 4 per cent. of the total cultivated area.

The growth of population was very rapid up till the end of nineteenth century as may be seen from the marginal table. In the first decade of the present century the ravages of plague have arrested the growth of population. The Fazilka Tahsil has gone on increasing in population, but this increase has been counterbalanced by a decline in the eastern tahsils.

18. The district is well off for stock and a good number of very fine bullocks are bred in the neighbourhood of Abohar. The camels of the district are also of a good type. Perhaps the most noticeable feature is the way in which the cow buffalo which thrives on stall feeding has taken the place of the cow as a dairy animal; this is of course due to the contraction of grazing grounds brought about by the extension of cultivation caused by the introduction of canal irrigation. The following table gives the figures for stock at the last enumerations:—

Year.	Bulls and bullocks.	Cows.	BUFFALOES.		Camels.
			Male.	Cows.	
1898-99	229,646	96,856	13,510	90,295	13,430
1903-04	203,410	92,496	17,812	99,417	16,461
1908-09	230,377	109,749	22,659	137,979	27,123
1913-14	230,597	112,581	18,801	151,703	20,773

It should be noted that camels are largely used for ploughing in the sandier parts of the district besides being important as a means of transporting produce to market.

19. The eastern part of the district had at last settlement been fully developed, but there remained large areas of waste in Muktsar and Fazilka. In the riverain tracts there has been a distinct decline in the cultivated area, which is largely due to the saline efflorescence (*shor*) caused by over-irrigation from the inundation canals. The great expansion of irrigation, especially from

the Sirhind Canal, is noticeable. The following table gives the salient features of this development.

Tract.	Cultivated Area,	PERCENTAGE IRRIGATED BY				
		Wells.	Sirhind Canal.	Grey Canal.	Canal Wells.	Total.
	Acres.					
Moga ...	1884-85 { 477,789	1	9	...	...	10
	1912 { 478,487	1	23	3	...	27
Zira ...	1887 { 253,134	13	...	12	2	27
	1913 { 240,843	19	...	14	3	36
Ferozepore ...	1888 { 170,249	14	...	8	3	25
	1912 { 158,619	12	...	12	6	30
Mamdot Jagir ...	1890 { 171,898	20	...	27	6	53
	1913 { 160,261	13	...	37	8	58
Fazilka ...	1901 { 654,172	1	45	8	1	55
	1914 { 763,299	1	47	6	1	55
Muktsar ...	1891 { 379,259	...	25	2	...	27
	1913 { 406,848	...	39	2	...	41
Total District, present Settlement ...	2,203,357	4	28	8	2	43

Thus the cultivated area has remained stationary in Moga; in Zira, Ferozepore and Mamdot Jagir there have been decreases of 5, 7, and 7 per cent., respectively, while Muktsar and Fazilka show increases of 7 and 17 per cent.

20. The amount of alienation that has taken place since last settlement is nowhere such as to cause any anxiety. The following table summarises the position in the form of percentages on the cultivated area :—

Tract.	SALES.		EXISTING MORTGAGE.	
	To Zamindars.	To others.	To Zamindars.	To others.
Moga ...	4	1	14	3
Zira ...	7	3	10	6
Ferozepore ...	7	8	9	6
Mamdot Jagir ...	6	2	5	5
Muktsar ...	5	1	9	2
Fazilka ...	3	1	2	1
Total District ...	5	2	8	3

This table shows clearly that the money lender has nowhere obtained any very strong grip on the people except to some extent in Ferozepore.

21. A feature of this district is the rapid appreciation that has taken place of recent years in the value of land. In the last twenty years, or, it might almost be said, in the last ten years, the selling price of land has doubled in Zira, Moga and Ferozepore and quadrupled in Muktsar and Fazilka. In the Mamdot Jagir the decline in price in Jalalabad Bet reduces the figures, and thus in that tract the rise is not marked, though in the Rohi circle the price doubled. The multiple of the land revenue represented by the selling price of land ranges from 88 in the Mamdot Jagir to 350 in Fazilka. As far as can be seen from the figures the Land Alienation Act has had not the least effect in checking this rapid rise in value, though it has been of the greatest value in decreasing the volume of the mortgage among the improvident Muhammadan tribes of the riverain circles.

The following table gives the sale price and the mortgage value per acre cultivated on the figures of the latest series of years dealt with in the assessment reports :—

Tract.	Series of years.	VALUE PER ACRE CULTIVATED.			
		Sale.		Money. Rs.	Multiple of revenue.
		Price. Rs.	Multiple of revenue.		
Moga	1906-07 to 1910-11...	217	270	139	177
Zira	1906-07 to 1910-11...	137	161	133	155
Ferozepore ...	1906-07 to 1910-11...	136	158	120	133
Mamdot Jagir ...	1906-07 to 1911-12...	58	88	63	95
Muktsar... ..	1906-07 to 1911-12...	125	285	87	197
Fazilka	1907-08 to 1912-13...	74	350	59	243

22. The object being to determine the true half net-assets of the land-lord cash rents if sufficiently numerous would be a most valuable guide. In this district, however, the areas held on true cash rents are not sufficiently extensive to afford more than the roughest of checks on the produce estimate. The areas held on cash rents are 7 per cent. of the cultivated area in Moga, Zira and Ferozepore, 34 per cent. in the Mamdot Jagir and 3 per cent. each in Fazilka and Muktsar. The large percentage in Mamdot is due to the fact that the lands owned by the Nawab of Mamdot are let on cash rents; I, however, argued and my arguments were accepted that these rents could not be regarded as true rents, and they were excluded. All rents were examined at the time of inspection of the village, and such rents as appeared for any reason abnormal were excluded; all rents paid by mortgagors to mortgagees were thus excluded as they are almost always rather of the nature of interest on the sum advanced than true rents.

Cash rents are comparatively rare in the Bet circles and in Fazilka Tahsil appear to be largely customary.

No allowance was made for fallows and rents uncollected, as in this district the owner collects his rent, whether the land has borne a crop or not, and the rent is usually paid a year in advance, and enhanced rates being in many cases levied if payment is deferred till after the harvest.

The rent rates are very various and are fully discussed in the various reports. It will be sufficient to say here that everywhere there had been a marked rise in the pitch of rents since last settlement.

23. In view of the paucity of cash rents the estimates of the landlord's

Rates of Batai.

half-net assets had to be based almost entirely on the produce estimates. The question of the rates of *batai* was thus one of importance in view of the large areas which are held on *batai* rates in this district; the percentages of the cultivated area thus held in different parts of the district are given in the marginal table. In a district of such diverse conditions and inhabited by such a variety of tribes as Ferozepore, it is impossible to say that there is any general rate of *batai*. A

Moga	...	...	22
Ferozepore	...	...	37
Zira	...	...	28
Mamdot	...	...	28
Muktsar	...	...	28
Fazilka	...	...	40

detailed discussion of the prevalent rates of *batai* will be found in each assessment report, and I will only attempt a very brief summary here. To take well lands first it may be said that the almost universal rate is one-fourth *batai*; in Moga the rate occasionally rises as high one-half, while rates of one-third are common in Moga and Zira; in Fazilka, however, a rate of one-fifth is not uncommon. On *sailab* lands all along the river the rate is either one-third or one-fourth. On Sirhind Canal lands the rate varies widely: in Moga one-half is the common rate, the owner paying half the *abiana*; in the Kot Kapura Utar circle of Muktsar the same rate prevails, but elsewhere in Muktsar the usual rate is one-third or one-fourth the tenant paying the whole of the *abiana*; in Fazilka the usual rate is one-fourth, one-third being rare. On *nahri zilla* lands the usual rate in Moga, Zira and the Ferozepore Rohi is one-half, the owner and tenant dividing the payment of *abiana* and *khush haisiyati* in the same proportion. In the rest of the district the commonest rate is one-fourth in which case the tenant pays both *abiana* and *khush haisiyati*.

On unirrigated lands there is great diversity, and in many cases the tenant has to pay the whole or a part of the revenue or some cash extra. In Moga, Zira and Ferozepore, the commonest rate is one-half with extras in the case of Moga and to a less extent Ferozepore Rohi; in Mamdot Jagir one-fourth and one-third are common rates; in Muktsar in the upland circles the usual rates are one-third with extras or one-half without extras, but in the Hithar rates of one-half, one-third and one-fourth with or without extras occur and in Guru Har Sahai the rate is one-fourth with extras. In Fazilka Sikhs generally take a third, but among other tribes the rate is often only one-fourth and extras are the exception.

24. In the previous paragraph mention has been made of cash extras

Additions.

taken with *batai* rates. These extras are generally expressed in terms of the whole or a fraction of the revenue, but sometimes a specified cash payment at so many annas per *ghumao* is taken; in Muktsar Hithar and Guru Har Sahai the extra is generally imposed in the form of a lump sum per plough which may be reckoned at 25 *ghumaos*; this is known as *rasum killi*. Additions were made to the produce estimate where necessary on account of these extras.

Besides the above extras in cash another addition had to be made on account of *kharch*, which is an extra payment in kind levied by the owner. In some circles an addition had also to be made in the case of wells for green fodder taken by the owner in lieu of straw. Where the tenant paid the *khush haisiyati* this item had also to be added.

25. Deductions had also to be made from the produce estimate in

Deductions.

certain cases. Wherever the owner paid a part of the *abiana* this had to be deducted. In certain circles also deductions were made on account of *kamins'* dues paid from the common heap before the division of the produce. The produce estimate was considerably complicated by these various adjustments.

The following table will show the rates at which these various additions and deductions were made in the different circles:—

Tract.	Circle.	ADDITION ON ACCOUNT OF		Deductions on account of kamins' dues.
		Cash extras.	Kharch Hakimi.	
Moga ...	Rohi ...	6 annas per acre.	...	4 per cent.
	Grey Canals ...	1 anna	...	3½ "
	Mahraj ...	1 "	...	3 "
Ferozepore ...	Rohi ...	2½ annas	...	3½ "
	Bet ...	...	...	15 per cent. chahi, 6 other.
Zira ...	Rohi ...	...	...	5 " " 4 "
	Bet ...	...	...	9 " " 6 "
Mamdot Jagir ...	All circles ...	...	...	15 " " 6 "
Muktsar ...	Rohi ...	7 annas per acre.	...	3
	Utar ...	3½ "	...	4
	Kot Kapura ...	...	...	...
	Utar ...	...	...	3½
	Hithar ...	6 and 2 annas per acre	...	3½
	Guru Har Sabai ...	Re. 1 per plough of 20 acres.	12½	3½ chahi, 2½ other.
Fazilka ...	Rohi ...	...	...	...
	Utar ...	...	4	10 per cent.
	Hithar ...	...	4 and 5	10 chahi, 4 other.

N. B.—In Fazilka the *kharch hakimi* is calculated on the balance of the produce after the deductions of the kamins' dues, elsewhere it is calculated on the owner's share.

Selected years.

26. To turn now to the other factors of the produce estimate.

The series of years selected for the produce estimate varies considerably. The series 1901-02 to 1910-11 was employed in the Rohi and Mahraj circles of Moga and the Ferozepore Rohi, in the Moga Grey Canals the series was 1907-08 to 1910-11, in Ferozepore Bet and both Zira circles the years 1901-02 to 1910-11 omitting the abnormal year 1907-08, in Mamdot Jagir 1902-03 to 1911-12 omitting 1907-08, in Muktsar 1902-03 to 1911-12 and in Fazilka 1902-03 to 1912-13. The Financial Commissioner considered that the series selected for the Moga Tahsil were below the true normal though this was less marked in the Grey Canals circle than in the other two. In the Ferozepore Tahsil the Rohi series was considered to be probably below the normal, while in the Bet the series might be taken as approximating to the normal. In Zira the results given by the selected cycle were fair enough for the Rohi, but somewhat too high for the Bet. In Mamdot Jagir the Financial Commissioner concluded that in all circles the average matured area yielded by the selected years was somewhat excessive. In Muktsar it was considered that the results given by the selected cycle were on the whole fairly close to the present true normal and probably not in excess of it. In Fazilka the Financial Commissioner considered that the cycle gave an average below the present true normal in the Rohi and Utar, but above the true normal in the case of the Hithar circle.

27. No reliable experiments had been carried out prior to settlement by the district staff. Owing to the late arrival of the staff no experimental cuttings were made in Kharif 1910, but from rabi 1911 onwards experiments

Yields.

were regularly made and the results utilised as far as available in the various assessment reports; data based on the experiments of six harvests, *viz.*, rabi 1911 to kharif 1913 (inclusive) being available for the last assessment report that dealing with Fazilka.

For purposes of comparison in addition to the yields assumed at previous settlements there were available the yields assumed in the recent settlements of Ludhiana, the Faridkot State and certain Patiala Tahsils. The yields assumed have been checked by constant local inquiries, but in only one case was I able to obtain any reliable accounts showing produce actually collected by a large landlord.

The yields assumed by me were generally accepted as suitable, though in the Mamdot Jagir my yields for gram were considered low and nahri Sirhind wheat in Moga was also held to be somewhat lenient. The yields assumed by Mr. Francis were based on a long and intimate acquaintance with agriculture of the district, and except in the case of crops grown with aid of Sirhind Canal water I have been chary of altering them to any great extent. I raised the yields of wheat somewhat in some circles and also those for rice and maize. The yield of gram was reduced somewhat in Zira and Mamdot, while that for barley has been raised in some cases and reduced in others. In Fazilka I have only altered Mr. King's yields to any considerable extent in the case of *sailab* crops where in the Hithar where Mr. King's yields seemed to me somewhat inflated.

The following table gives the yields assumed for the principal crops:—

Tract.		Circle.	Rice.	Bajra.	Jowar.	Maize.	Wheat.	Barley.	Gram.
Moga	...	Rohi ...	...	180	220	720	520	520	420
		...	...	160	190	280	280	280	360
		Grey Canals ...	300	180	280	720	520	520	420
		...	...	160	190	280	280	280	360
		Mahraj ...	...	180	220	580	420	420	400
Zira	...	...	...	140	140	200	200	200	300
		Rohi ...	300	180	280	700	500	500	400
		...	...	160	180	280	280	280	280
		Bet ...	400	180	260	700	440	440	280
Ferozepore	...	...	200	160	160	280	200	200	200
		Rohi ...	300	180	260	680	480	480	400
		...	...	160	160	280	280	280	280
		Bet ...	400	180	260	680	440	440	280
		...	200	160	160	280	200	200	200
Mamdot Jagir	...	Rohi ...	550	200	240	600	400	400	280
		...	200	160	160	240	200	200	240
		Dhora ...	550	220	240	600	440	440	320
		...	200	120	160	240	180	180	180
		Bet Mamdot	500	220	240	500	400	400	280
Muktsar	...	...	200	120	160	240	180	180	180
		Bet Jalalabad	500	220	240	500	400	400	280
		...	200	120	160	240	180	180	180
		Rohi ...	...	180	160	600	380	380	400
		...	...	100	120	200	160	160	240
Fazilka	...	Utar Kot Kapura	...	180	160	600	380	380	400
		...	...	120	120	200	200	200	280
		Utar Muktsar	...	180	160	600	380	380	400
		...	...	120	120	200	180	180	280
		Hithar ...	500	180	160	600	320	320	320
Fazilka	...	...	...	100	120	200	160	160	240
		Guru Har Sahai	500	180	160	600	320	320	320
		...	...	100	120	200	160	160	240
		Rohi ...	...	180	160	560	340	360	340
		...	...	100	100	160	160	160	200
Fazilka	...	Utar ...	500	180	200	560	300	360	340
		...	...	100	100	160	160	160	160
		Hithar ...	480	220	200	560	320	340	280
			240	80	80	160	160	160	160

Notes.—The upper line gives the maximum irrigated yield while the lower line gives the unirrigated yield in seers per acre.

28. The enquiry into the prices of the principal staples was made in the usual way. A careful scrutiny of shop-keeper's books over a period of 25 years was made at the chief markets of the district. The current harvest prices recorded in the circle note-books were found to have been ascertained with considerable care, and there was no lack of information. In consequence of the excellence of communications in this district, a uniform scale of prices was used throughout the district. The principal staples were rated as follows in annas per maund :—

<i>Kharif</i>				<i>Rabi</i>			
Rice	...	...	27	Wheat Nahri Sirhind...	...	...	36
Jowar	...	...	24	Other	...	...	34
Bajra	...	...	23	Barley	...	...	23
Maize	...	...	24	Gram	...	...	25
Mung	...	...	33	Sarshaf	...	...	52
Mash	...	...	38	Other oilseeds	...	...	42
Moth	...	...	30				
Cotton	...	...	76				
Hemp	...	...	80				
Til	...	...	72				
Gwara	...	...	20				

Cash values were assumed for the following crops :—Sugarcane Rs. 180 per acre, vegetable and fruits Rs. 16, tobacco Rs. 10, chari and other kharif fodder Rs. 10, and rabi fodder Rs. 7.

For the straw the following values were assumed :—Maize 10 maunds per rupee, bajra 6, jowar, kharif pulses and gram 4, and wheat and barley 3.

29. The Financial Commissioner in his reviews put the rise in prices at the following figures :—In Moga and Ferozepore 50 per cent., in Mamdot Jagir 58 per cent., in Muktsar 61 per cent., and in Fazilka about 61 per cent. as compared with Mr Wilson's settlement and not less than 15 per cent. as compared with Mr. King's; in Zira no definite figure was given, but Mr. Middleton calculated it at 57 per cent.

30. A consideration of the figures already quoted reveals various grounds for the enhancement of the land revenue which may be summarised here :—

First and foremost as applicable to the whole of the district is the enormous rise in prices and the concomitant rise in the value of land that has taken place since last settlement.

Secondly, in the tracts irrigated by the Sirhind Canal we have the great extension of perennial canal irrigation, the profits from which were left entirely out of account in the assessment imposed at last settlement.

Thirdly, the revenue imposed at last settlement was everywhere extremely lenient, with the possible exception of the Bet Circles, even at time it was impossd.

Fourthly, in Muktsar and to a still greater extent in Fazilka, there had been a considerable expansion in the cultivated area.

CHAPTER V.—REVISION OF RECORD OF RIGHTS.

31. Owing to some delay in issuing the orders sanctioning the commencement of settlement operations in Ferozepore I did not join my appointment as Settlement Officer till November 3rd, 1910, while the Extra Assistant

Settlement Officer, did not join till 19th December 1910 being sent to Ludhiana for a month to see how things were done. The subordinate staff was not complete till January 1911.

I was given a set programme of work and establishment accordingly. According to this programme the Moga and Ferozepore Tahsils were to be taken in hand in 1910 and record work completed in September 1912; Zira and Muktsar were taken in hand in October 1911 and completed in September 1913, while in Fazilka work was to be started in October 1912 and completed by September 1914. A reduced establishment being retained for a further 6 months in each tahsil for *back* work.

In Fazilka only a revision of the record of rights was at first contemplated, but an examination of the maps showed that though prepared as recently as 1897 the tahsil had developed so fast that correction and in some cases re-measurement were desirable. Accordingly sanction was obtained to a thorough revision of the maps as well as the record in the Fazilka Tahsil, and some extra establishment was sanctioned for this purpose.

In addition to the delay entailed by the non-arrival of the subordinate staff considerable delay was caused by the census operations in the first quarter of 1911. In fact beyond the examination of the old maps very little real work was accomplished before April 1911.

The following table gives an idea of the progress of work. —

Tahsil.				Dated of commencement.	Completion of measurement.	Filing the record.
Moga	...	...	...	November 1910	April 1912	December 1912.
Ferozepore	...	...	...	Ditto	October 1912	January 1913.
Zira	...	...	...	October 1911	May 1913	September 1913.
Muktsar	...	...	...	Ditto	March 1913	August 1913.
Fazilka	...	...	...	October 1912	March 1914	August 1914.

In all tahsils the record was completed and filed some months before orders were received and the new demand announced and distributed.

Throughout the settlement efforts were made to ensure that record work should keep pace with mapping. No patwari was allowed to commence a new village till his last village had been completed, attested and filed. The postcard system by which all subordinate officers informed myself and the Extra Assistant Settlement Officer or Assistant Settlement Officer as soon as a village was commenced, measurements finished, attested by the Kanungo, Naib Tahsildar, and Tahsildar and finally filed in the tahsil was copied from Ludhiana and proved most valuable. The only cases in which mapping was pressed on and record work was completed later were riverain villages where it was essential to complete measurements before the floods arrived and obliterated the *chandas* laid by the Survey Department.

32. The unit of measurement is the 60-inch *karam* and the unit of area the *kanal*, except in Fazilka where the *karam* is only 57.157 inches and the area unit is the *pakka bigha*.

33. The maps we had to deal with were of very different epochs. In Moga, Zira and Ferozepore Proper we had the maps prepared by Mr. Francis on the square system between 1885 and 1888. In Muktsar the maps were mainly those prepared on the triangular system by Mr. Purser at the 1872

settlement as corrected by Mr. Francis in 1890. In Mamdot Jagir about two-thirds of the area had been re-measured by Mr. Francis in 1890-91 and the remainder was a revision of Mr. Purser's maps. The Fazilka Tahsil had been completely re-measured on the square system by Mr. Francis between 1894-97, and at the 1900-01 Settlement Mr. King re-measured only one estate; in the remaining estates the changes that had taken place were shown on supplementary mapping sheets (*tatimma sharras*). This was an unfortunate procedure as in many cases these *tatimmas* failed to fit into the old map. Had map revision been carried out according to the present system, the work at the present settlement would have been greatly reduced.

The maps prepared by Mr. Francis are renowned, and justly so, for their remarkable accuracy. Except where great changes had taken place owing to partitions and similar causes it was practically always possible to revise them. The practice introduced by Mr. Francis of not entering the measurements of the sides of the fields in the maps had proved very inconvenient in practice owing to the growing value of land. It was, therefore, decided to enter the *karukan* wherever the Patwari did any chaining; hence the maps present a somewhat patchy appearance. In Muktsar the maps of Mr. Purser's settlement appear to have been very accurate, but the correction done at last settlement was often very carelessly done. Also the scale of the maps which was either one hundred or fifty *karams* to the inch was an awkward one, and in many cases owing to the introduction of canal irrigation and the consequent subdivision of fields the map had become very confused.

34. As each section of the district was taken in hand the old maps were tested in the manner prescribed by Appendix XXI of the Settlement Manual

Re measurement.

and orders passed as to whether revision was sufficient or re-measurement was required. All riverain villages were re-measured on the basis of a traverse prepared by the Riverain Survey Detachment. The Survey Department gave us fixed points (*chandras*) at convenient distances and the Patwaris did their measurements from the lines joining these points. The whole forms a continuous series of squares with base lines marked on both sides of the river with stone pillars. The Survey Department also supplied us with grouped maps showing all discrepancies in the boundaries of riverain villages. Numerous discrepancies between the permanent boundary as shown on the maps of this district and those of the adjoining districts came to light. These discrepancies arose from the fact that there was no common base lines except between Mamdot and Lahore. In laying down that boundary Mr. King made use of a common system of squares on both sides of the river, with the result that there were practically no discrepancies in this stretch of river. The boundary with the Kapurthala State also gave very little trouble as many of the iron posts erected when it was fixed were still standing, and further it had been surveyed by the Survey Department on the ground. Elsewhere there were numerous discrepancies. Files were prepared for each of these and decided by myself or the Assistant Settlement Officer. For the decision of these cases I was invested with the powers of a Collector in the Lahore and Montgomery Districts, while the Assistant Settlement Officer was given similar powers in the Jullundur District. Our decisions are now being given effect to in the current Lahore and Jullundur settlements. In all 169 files were prepared and in only 3 cases, concerning a group of villages in Zira and Jullundur were appeals filed; one of these appeals was successful; one appeal by a Montgomery village is pending. In the case of Fazilka some difficulty arose owing to the local *karam* being only 57.157 inches whereas the rest of the system of survey squares was based on a 60-inch *karam* and the permanent boundary laid down by Mr. King was also mapped on this scale. After some correspondence it was decided that the squares should be of two hundred 60-inch *karams* on the scale of forty *karams* to the inch, and the Survey Department devised a scale which enabled the Patwaris to plot measurements made in the local *karam* on the 60-inch *karam* squares supplied by them. The map is thus on the scale of 40 *karams* of sixty inches to the inch, but the distances entered thereon are in terms of 57.157 *karams*. I should here like to acknowledge the courtesy and ready

help of Rai Sahib Maya Das, Puri, the officer-in-charge of the Riverain Survey Party.

The following table shows to what extent re-measurement was necessary :—

Tahsil.					NUMBER OF VILLAGES.				
					Re-measured.		Partly re-measured.		Corrected.
					With help of Survey Department.	By square system.	With help of Survey Department.	By square system.	
Moga	...	...	...	...	...	2	...	...	207
Zira	...	...	...	...	49	6	22	...	287
Ferozepore	...	...	...	...	71	18	7	2	269
Muktsar	...	...	...	...	36	102	4	1	201
Fazilka	...	...	...	...	22	36	...	6	258
Total	...	...	...	...	178	164	33	9	1,212

35. As the scale of the village maps varies considerably I give the following table to show the number of villages on each scale :—

Tahsil,					NUMBER OF KARAMS TO THE INCH.				
					40	50	60	100	Others.
Moga	...	...	...	...	209	...	...	...	...
Zira	...	...	...	...	384	...	...	...	...
Ferozepore	...	...	...	...	810	38	...	9	...
Muktsar	...	...	...	...	164	17	...	163	...
Fazilka	...	...	...	...	92	...	208	...	22
Total	...	...	...	...	1,139	55	208	172	22

The maps on the 50 and 100 *karams* scales are those originally made by Mr. Purser which were corrected at last settlement and again at this settlement. The 22 villages shown as measured on another scale are riverain villages in Fazilka where the squares are composed of 60-inch *karams* in the scale of 40 to the inch, but the internal measurements are made in local *karams* giving approximately 42 *karams* to the inch.

36. Generally speaking, map correction has given quite a satisfactory map, but in some of the Muktsar villages the map, though good enough for *girda-wari* purposes, cannot be read accurately by the scale, and I now regret that I did not order more re-measurement in that tahsil.

37. There remain one or two points in connection with the survey which call for some comment. The first of these is the size of the fields. At last settlement both in Fazilka and Muktsar very large fields were the rule.

With several constantly changing tenants-at-will cultivating different parts of a field considerable confusion arose and the *girdawari* was made more difficult. With a view to obviating this difficulty I issued instructions that fields should not as a rule exceed the following sizes, provided of course that there were permanent boundaries :—

<i>Chahi.</i>	<i>Barani.</i>	<i>Nahri.</i>	<i>Waste.</i>
5 kanals	20 kanals	10 kanals	1 square.

Though this has of course resulted in a considerable increase in the number of fields, it has, I think, considerably facilitated *girdawari* work.

Another point which arose to some extent in Fazilka was the difficulty caused by the intermixture of land held in occupancy right and as tenant-at-will by one man in the same field. In some extreme cases men were recorded as holding so much as occupancy tenants under section 5, so much under section 8, and the balance as tenants-at-will. Efforts have been made to continue the work begun by Mr. King in splitting up such fields into their constituent parts according to the various tenures. This was done by means of a mutation of private partition wherever the owner and the tenant would agree to such a course.

The patwaris in map correction worked on copies of the last settlement map. These copies were prepared at Sadr by means of a carbon process by a staff of patwari candidates. These corrected copies are the Part Sirkar. Duplicates of these are the Part Tahsil, while the Patwari retains only the Aks Latha for *girdawari* work. For riverain villages, however, where annual alluvion diluvion measurements have to be made, the patwari has been furnished with a copy of the settlement map on mapping sheets in addition to his *girdawari* map.

Copies of the new maps have been taken by Canal Department.

38. At the Regular Settlement the *barani* soils had been divided in Fazilka into *dakar*, *rausli* and *bhur* and in the rest of the district into *karar*, *tibbi*, *bahal*, *ghusra*, *dair* and *mair*. This classification, however, had nothing to do with the local soils as distinguished under totally different names by the people and had been abandoned by Messrs. Francis and King in favour of a classification based entirely on irrigational facilities. This policy was adhered to, and with the sanction of the Financial Commissioner the following classes of soil were recorded :—

Classification of soils.

Chahi—Land regularly irrigated from a well.

Nahri shahi—Land regularly irrigated from the Sirhind Canal.

Nahri shahi jhallari—Land regularly irrigated from the Sirhind Canal by means of *jhallars*.

Nahri zilla—Land regularly irrigated from the Grey Canal.

Nahri zilla jhallari—Land regularly irrigated from the Grey Canals by means of a *jhallar*.

Chahi nahri shahi—Land regularly irrigated from a well and the Sirhind Canal.

Chahi nahri zilla—Land regularly irrigated from the Grey Canals and a well.

Jhallari—Land watered by a *jhallar*.

Abi—Land watered by cuts from a *jheel*.

Sailab—Land regularly flooded by the river or permanently moist by percolation.

Barani—All unirrigated cultivated land

and the other usual classes of uncultivated land.

The test of irrigation was that the land had been watered twice in the last four years. There were extremely few complaints as to the accuracy of the classification which was determined by the *khasra girdawari* records. As I

pointed out in the report on soil classification it would be almost impossible to arrange a satisfactory classification of *barani* soils as so much depends on the nature of the sub-soil. A soil classification distinguishing various kinds of *barani* was not wanted in the distribution of the demand. In a very few cases a *patti* or block with a distinctly inferior soil was given a separate assessment; this was done in Giddarbaha (Muktsar), Chiragh Shahwala, Jalalabad and Alipur (Zira), Bukkan Khanwala, Kabar Wachha and Malwal (Ferozepore), Bagha Purana, Daudhar, Daroli Bhai, Killi Chahilan, Dhudike and Tikhanwadh, (Moga). This was generally sufficient to satisfy the people, and only one village that of Nathuwala in Moga carried distinctions of soil further; in that village it was agreed that a certain block of land lying between two roads and largely composed of sandhills should be rated at a lower rate than the rest of the *barani*; the proportion of the two rates were fixed by the villagers themselves, and there was no trouble in doing the *bach*. The extent to which the villagers made use of our soil classification in distributing the demand will be discussed in the paragraph dealing with the *bach*.

39. The revision of the record of rights proper involved the attestation of a very large number of mutations especially in the Moga Tahsil, as may be seen from the following table which shows the number of mutations attested during the time settlement operations lasted in each tahsil :—

Period.	Moga	Ferozepore.	Zira.	Muktsar	Fazilka.
1st October 1910 to 30th September 1911 ...	84,635	7,499	...	...	...
1st October 1911 to 30th September 1912 ...	35,141	9,140	17,817	12,524	...
1st October 1912 to 30th September 1913 ...	11,398	4,648	27,860	12,609	5,481
1st October 1913 to 30th June 1914 ...	...	...	...	4,106	6,025
Total ...	81,174	21,287	45,177	29,239	11,503

The last settlement record was everywhere a good one, but in Moga despite the frequent employment of an extra Naib Tahsildar it was somewhat out-of-date. Owing to the rapid exchange of mortgages which takes place in Moga it will always be hard to keep the record up-to date in that tahsil and an Extra Naib Tahsildar will have to be employed at frequently recurring intervals as my proposal to have a permanent sub tahsil has not been approved.

40. The record has been framed in accordance with the law on the subject and the revenue rules, and need not be discussed in detail. It comprises the following documents :—

Preliminary proceeding (Robkar ibtidai).—This contains the notifications under which the settlement operations were undertaken.

Index of field numbers (Fard numberwar).—Showing the khatauni number of each field number.

Alphabetical list of owners and tenants (Index radifwar).—Showing their holdings.

Genealogical tree (Shajra nasb).—In small villages the *shajra nasb* has been placed in a pocket of the cover, elsewhere it is in a separate portfolio.

Field map (shajra kishtwar).

Jamabandi, with attested mutations.

List of assignments and pensions.

Statement of rights in wells (naksha haquq chahat).

Village administration paper (wajib-ul-arz).

List of cases (fehris habub dehi).

Copy of the order of the Collector determining the assessment.

Copy of the order of the Collector distributing the assessment over holdings.

The original orders together with orders on objections are bound up separately with the *bach* file.

The settlement record was used for the distribution of the new demand, except in one village in Ferozepore, where owing to a large increase in cultivation after the completion of measurements it was found desirable in consequence of objections raised to the *bach* to revise the soil classification. In the case of villages under the alluvion diluvion rules, the new revenue was announced on the latest *burd-baramad* figures.

41. The subjects referred to in the village administration paper are those prescribed in the Land Revenue Rules. A few disputes arose, especially with regard to *kamins'* dues; in such cases the old entry was retained unchanged.

42. Partition work was naturally heavy. Up to December 31, 1914, the district and settlement staff disposed of 2,332 cases, involving an area of 303,940 acres. In addition a large number of private partitions were effected by mutations.

43. Other case work was not very heavy; I anticipate, however, that the introduction of the new demand in Fazilka will entail a good deal of litigation between owners and those tenants-at-will who have been long in possession and paying at customary rents; this will probably take the form of ejectment suits and suits for occupancy rights rather than enhancement of rent suits. The following table shows the amount of case work disposed of during the course of settlement:—

Class of case.	Settlement Officer.	Assistant Settlement Officer.	Extra Assistant Settlement Officer.	Total.
Appeals, partitions	39	...	...	39
Mutations, do	805	38	...	843
Lambardari	523	150	398	1,071
Patwaris and Kanungos	317	29	...	346
Muafi revisions	619	...	...	619
Riverain boundaries	115	49	...	164
Partitions ... ..	...	357	1,529	1,886
Hadbarari ... ..	...	552	2,475	3,027
Other revenue cases	890	350	195	1,435
Enhancement of rent	2	71	106	179
Criminal cases	2	7	51	60

CHAPTER V.—REVISION OF THE ASSESSMENT.

44. There were two problems in connection with the assessment of a general nature which called for decision; they were—

- (1) the method of assessing the advantage derived from irrigation with Sirhind Canal water;
- (2) the suitability of the existing system of *khush haisiyati*, or water advantage rate, on crops grown with the aid of water from the Grey Canals.

(a) The first of these problems had been fully discussed in connection with the Ludhiana Settlement, and the Government of India had decided that lands irrigated from Sirhind Canal should be assessed to land revenue at rates slightly higher than the ordinary dry rates. In the orders on the Moga report it was decided to follow this method.

(b) The second problem was dealt with in the assessment report of the Ferozepore and the reviews and orders thereon. The *khush haisiyati* or water advantage rate on Grey Canal irrigation had been introduced by Mr. Francis at his settlement. Crops were divided into two classes, superior and inferior, viz :—

Superior crops.—Rice, sugarcane, maize, cotton, tobacco and chillies.

Inferior crops.—Other kharif crops and all rabi crops.

Superior crops were assessed at 12 annas per *ghumao* (Re. 0-14-6 per acre) and inferior crops at 6 annas per *ghumao*. In kharif only matured crops were assessed to *khush haisiyati* but in rabi all crops sown with the aid of canal water had to pay whether the crop matured or not. In Fazilka the *khush haisiyati* system had been introduced by Mr. King at his settlement, but he used a different classification in which wheat was classed as a superior crop. In Fazilka, however, only matured areas were assessed in either harvest. The Fazilka rates too differed in pitch from those in the rest of the district being one rupee per acre for superior and six annas per acre for inferior crops.

In the Ferozepore report I proposed that the present system should be maintained, but that in future *khush haisiyati* should only be levied on matured crops. I also proposed that the rates should be raised to one rupee for superior and 8 annas for inferior crops per *ghumao* (Re. 1-3 4 and annas 9-8 per acre) the classification to remain unaltered.

These proposals were sanctioned and the same method and rates have been put in force throughout the district except in Fazilka where though the classification has now been brought into line with the rest of the district the rates being expressed in the terms of *bighas* are slightly different being 12 annas and 6 annas per *bigha* (Re. 1-3 2½ and annas 9-7 per acre).

45. The half net assets were determined by a comparison of the results of the estimates based on rents in kind and on cash rents modified by estimates based on the scale or mortgage value of land. The following table gives the results of the produce and cash rent estimates and also of the mortgage estimate where one was framed together with the "true" half net assets as finally approved by the Financial Commissioner :—

Tracts.				HALF NET ASSETS AS ESTIMATED ON			True half net assets.
				Rents in kind.	Cash rents.	Mortgage values.	
				Rs.	Rs.	Rs.	Rs.
Moga	...	...	...	15,22,394	18,87,975	15,46,048	16,12,000
Zira	...	...	...	7,30,205	9,48,066	7,95,070	7,70,000
Ferozepore	...	...	...	8,85,285	5,54,366	4,32,781	4,30,000
Mamdot	...	...	...	3,01,533	3,99,533	...	3,18,000
Muktsar	...	...	...	6,73,551	15,56,831	7,91,478	7,25,000
Fazilka	...	...	...	9,16,339	Not prepared for all circles.	8,65,000	8,87,000
Total	...	...	...	45,79,307	...	...	47,42,000

In Mamdot Jagir an estimate was based on the sale and not the mortgage value, this gave a sum of Rs. 4,37,286.

The reasons leading to the adoption of the above sums as the half net assets will be found detailed in the assessment reports and the reviews thereof.

46. I will now deal with the assessment of the district by tahsils. Details as to assessments by circles are fully given in the various reports and need not be recapitulated here. I, however, give the more important features in tabular form under each tahsil. The following table gives the dates of sending to the press of the different reports and the date of receipt of orders :—

Reports.		Date when sent to press.		Date when orders were received.
Moga.	...	July 1912	...	April 1913.
Ferozepore...	...	September 1912	...	May 1913.
Zira*	...	June 1913	...	November 1913.
Mamdot	...	July 1913	...	Ditto.
Muktsar	...	September 1913	...	May 1914.
Fazilka	...	May 1914	...	December 1914.

*(Zira written by Mr. Middleton, Assistant Settlement Officer.)

The delay in the case of Moga and Muktsar was due to the necessity of making references to the Government of India.

47. *Moga Tahsil.*

OLD DEMAND.		True half-net assets.	SANCTIONED DEMAND.		PERCENTAGE.	
Fixed.	Fluctuating khush haisiyati.		Fixed.	Fluctuating	Increase.	Half-net-assets.
Rs.	Rs.	Rs.	Rs.	Rs.		
8,87,000	6,800	16,12,000	6,98,000	8,500	64	46

Incidence per acre cropped Re. 1-8-2.

The half-net-assets of this circle were put at Rs. 11,00,000. The new demand sanctioned was Rs. 4,40,000 absorbing 40 per cent. of the half-net-assets and amounting to an increase of 69 per cent. on the old demand, the incidence per acre cropped being Re. 1-9-0. The sanctioned rates are—

	Rs. A. P.				
Chahi and chahi-nahri	2 0 0
Nahri shahi (Sirhind)	1 12 0
Barani	1 6 0

The half-net-assets were estimated at Rs. 2,52,000, the sanctioned new demand was Rs. 1,00,000 giving an increase of 63 per cent. and equal to 40 per cent. of the half-net-assets. The incidence per acre of matured crops is Re. 1-3-6. The order that nahri-parta was to be treated as *khalsa* revenue was a disagreeable surprise to the *jagirdar* peasant owners who all appealed. Their appeals were, however, rejected by the Financial Commissioner who, however, modified the second instalments of the progressive *jamias* to afford them some relief.

The half-net-assets were put at Rs. 2,60,000 and a new demand of Rs. 98,000 fixed and an estimated amount of Rs. 85,000 fluctuating *khush-haisiyati* was imposed. The incidence per acre matured is Re. 1-7-9. The rates sanctioned for the distribution were as follows :—

	Rs. A. P.				
Chahi and chahi-nahri	1 12 0
Nahri Sirhind	1 12 0
Nahri zilla and barani	1 4 0

Corrigendum.

Final Settlement Report of Ferozepore, 1910—1914.

Paragraph 48.—Ferozepore Tahsil.

For "Rs. 8,523" in column 2 of the statement read "Rs. 11,200."

The rate per cropped acre is Re. 1-2-6.

The half net-assets were calculated to be Rs. 3,00,000. The new demand was put at Rs. 91,000 made up of Rs. 88,000 fixed while the fluctuating Grey Canal water advantage rate was estimated to bring in Rs. 3,000. This represented an increase of 48 per cent. on the old demand and absorbed 30 per cent. of the half-net-assets. The incidence per acre cropped is Re. 1-1-2. The demand was well received on the whole. The sanctioned soil rates were —

Rohi circle.

					Rs. A. P.	
Chahi and half chahi-nahri zilla	...	...	...	...	1	6 0
Nahri Sirhind	...	...	...	...	1	8 0
Barani, half chahi-nahri zilla and nahri zilla	...	...	...	...	0	13 6

The half-net-assets were put at Rs. 1,30,000. The new demand imposed was Rs. 73,000, of which Rs. 11,000 is the estimated yield of the *khush-hai-siyoti*. This absorbs 56 per cent. of the half-net-assets, and is an increase of 13 per cent. on the old demand. The increase in the fixed demand is only 7 per cent., and a part of this is the result of raising the diallusion rates on lands exposed to river action. The incidence per acre cropped is Re. 1-4-3.

Bet.

The sanctioned soil rates were —

					Rs.	
Chahi, &c.	...	...	...	...	1	14 0
Barani, &c.	...	...	...	...	0	10 0

The demand was very well received as it was possible to give some much-needed reductions in the case of villages which had suffered badly from *kallar*. The circle was in a bad condition, but has been leniently treated, and given favourable seasons for the inundation canals may recover.

OLD DEMAND.		Half-net-assets.	SANCTIONED DEMAND.		PERCENTAGE OF	
Fixed.	Khush haisivati fluctuating.		Fixed.	Fluctuating.	Increase.	Half-net-assets.
Rs.	Rs.	Rs.	Rs.	Rs.		
2,24,257	22,613	7,70,000	2,99,100	28,900	29	41

Rate per acre cropped Re. 1-4-10.

The new demand as finally fixed was Rs. 1,60,000 including *khush-haisiyati* which was estimated to bring in Rs. 7,722 per annum. This was equivalent to an increase of 38 per cent. on the old demand and absorbed 35½ per cent. of the half-net assets. The rates used in the distribution were—

				Rs. A. P.		
Chahi and half chahi-nahri zilla	...	..	..	2	1	0 per acre.
Remainder of cultivated area	...	...	...	1	1	9 Do.
Incidence per acre cropped	...	...	...	1	5	4 Do.

The Zira Bet is considerably better off than the similar Ferozepore circle. The new demand was fixed at Rs. 1,58,000 including an estimated *khush haisiyati* of Rs. 21,166. This was enhancement of 21 per cent. and absorbed 49 per cent. of the half-net assets. The incidence per acre cropped is Re. 1-4-9. As in Ferozepore there was a slight enhancement of the dialuvion rates. The soil rates used in distributing the new demand were—

				Rs. A. P.		
Chahi and half chahi-nahri zilla	...	...	...	2	0	0
Remaining cultivation	...	...	...	0	13	0

Mamdot Jagir.

50. This tract of country which for administrative purposes is divided between the Muktsar and Ferozepore Tahsils was the subject of a separate report. The following table gives the figures for the whole tract:—

OLD DEMAND.		Half-net assets.	SANCTIONED DEMAND.		PERCENTAGE OF	
Fixed.	Fluctuating khush haisiyati.		Fixed.	Fluctuating.	Increase.	Half-net assets.
Rs.	Rs.	Rs.	Rs.	Rs.		
1,11,770	28,741	3,18,000	1,20,300	35,900	10	49

Incidence per acre cropped Re. 1-1-7.

The rates used for the distribution of the fixed portion of the demand are given in the following table:—

Circle.			Chahi and half chahi-nahri zilla.	Nahri Sirhind.	Sailab.	Other cultivation outside fluvial chak.
			Rs. A. P.	Rs.	Rs. A. P.	Rs. A. P.
Rohi	...	...	1 4 0	1	..	0 9 9
Dhora	...	...	1 6 0	...	...	0 9 9
Bet Mamdot	...	...	1 10 0	...	0 12 0	0 9 0
Bet Jalsalabad	...	...	1 8 0	..	0 10 0	0 8 0

The half-net-assets of this circle were put at Rs. 1,64,000 and a demand of Rs. 68,000, of which Rs. 18,000 was the estimated yield of the *khush haisiyati* was imposed. This amounted to an increase of 31 per cent. and absorbed 41 per cent. of the half-net assets. The incidence is Re. 1 per acre matured. It was necessary to take large increases in the western part of the circle which had developed considerably since last settlement, but the demand was well received.

My estimate of the true half-net-assets was accepted, *viz.*, Rs. 58,000. This circle is not strong, and the old fixed assessment of Rs. 25,000 was maintained. The enhanced *khush haisiyati* was estimated to bring in Rs. 7,000

giving a total demand of Rs. 32,000, an increase of 6 per cent. only. The demand, however, absorbed 55 per cent. of the half-net assets. The incidence per acre cropped is Re. 1-3-5. The new demand was well received by the people who had not, I think, expected such liberal treatment.

The half-net-assets of this circle were put at Rs. 30,000, and a total demand of Rs. 19,200 was sanctioned.

Bet Mamdot. This was a decrease of 1 psr cent. on the previous demand: the decrease in the fixed assessment amounted to 6 per cent., but the dialluvion and *khush haisiyati* rates were raised as elsewhere. The demand has an incidence of Re. 1-2-5 per acre of matured crop and absorbed 64 per cent. of the half-net assets. The people were agreeably surprised at the liberality with which they had been treated.

The half-net assets were calculated to amount to Rs. 66,000 and a demand of Rs. 37,000 of which the *khush haisiyati* amounted to Rs. 9,000 and the assessment of the fluvial chak Rs. 4,000 leaving a fixed demand of Rs. 24,000, which was a decrease of 11 per cent. on the previous fixed demand the net decrease in the total demand after raising the *khush haisiyati* and dialluvion rates amounting to 5 per cent. The new demand absorbs 56 per cent. of the half-net assets and has an incidence of Re. 1-3-0 per acre cropped. A very large number of villages received reductions, and it was generally considered that the circle had been very generously treated.

Muktsar Pargana.

51. This tract comprises that part of the Muktsar Tahsil which is not included in the Mamdot Jagir. The following table gives the figures for the tract as a whole :—

OLD DEMAND.		Half net assets.	SANCTIONED DEMAND.		PERCENTAGE OF	
Fixed.	Fluctuating khush haisiyati.		Fixed.	Fluctuating.	Increase.	Half-net assets.
Rs.	Rs.	Rs.	Rs. A. P.	Rs.	Rs.	Rs.
1,68,330	4,154	7,25,000	2,68,300 0 0	5,100	58½	38

Incidence per acre cropped Re. 0-14-1.

The following table gives the rates sanctioned for the distribution :—

Circle.				Chahi and ½ chahi-nabri salla.	Nabri Sirhind.	Other cultivation.
				Rs. A. P.	Rs. A. P.	Rs. A. P.
Rohi	...	...	...	...	0 13 0	0 9 0
Muktsar Utar	...	...	...	...	0 13 0	0 9 0
Kot Kapura Utar	...	...	...	...	0 15 0	0 11 0
Hithar	...	...	...	1 4 0	0 12 0	0 7 6
Guru Har Sahai	...	...	...	1 4 0	...	0 9 0

The half-net assets of this circle were put at Rs. 1,35,000 and the new demand was fixed at Rs. 56,000, an enhancement of 61 per cent., which absorbed 41 per cent. of the half-net assets. The incidence per acre cropped is Re. 0-14-7.

The half-net assets were put at Rs. 2,00,000 and a demand of Rs. 73,700 was sanctioned. This was an increase of 92 per cent. on the old demand and absorbed 37 per cent. of the half-net assets, the incidence per acre matured being Re. 0-15-7.

Muktsar Utar.

The half-net assets were put at Rs. 2,00,000 and a new demand of Rs. 69,100 was sanctioned. This was an increase of 53 per cent. on the old demand and absorbed 35 per cent. of the half-net assets with an incidence per acre matured of Re. 1-0-7.

The half-net assets being put at Rs. 1,40,000 a demand of Rs. 54,000, of which Rs. 1,400 was on account of Grey Canal *khush haisiyati*, was sanctioned. This was an increase of 36 per cent. absorbing 39 per cent. of the half-net assets. The incidence per acre cropped is, however, only Re. 0-10-6. The reason that the increase in the demand in this circle as compared with the three preceding upland circles is that the area irrigated by the Sirhind Canal is insignificant.

The half-net assets were put at Rs. 50,000 and a demand of Rs. 20,600 of which Rs. 3,700 was the estimated yield of *khush haisiyati*, was sanctioned. This amounted to an increase of 36 per cent. and absorbed 41 per cent. of the half-net assets. The incidence per acre cropped is Re. 0-14-7. This circle receives no Sirhind irrigation at all.

52.

Tahsil Fazilka.

Old fixed demand.	Fluctuating khush haisiyati.	Other.	Half-net assets.	Sanctioned fixed.
Rs.	Rs.	Rs.	Rs.	Rs.
1,49,939	9,654	27,054	8,87,000	2,96,000

Demand khush haisiyati.	Other.	PERCENTAGE OF		Incidence per acre cropped.
		Increase.	Half-net assets.	
Rs.	Rs.	Rs.	Rs.	Rs. A. P.
11,000	26,000	78	374	0 9 8

The following table gives the rates sanctioned for the distribution of the fixed demand :—

Circle.				Chahi and $\frac{1}{2}$ chahi-nahri zilla.	Nahri Sirhind.	Other cultivation.
				Rs. A. P.	Rs. A. P.	R. A. P.
Rohi	...	...	...	...	0 8 0	0 5 6
Utar	...	...	...	0 8 0	0 5 0	0 4 0

I put the half-net assets of this circle at seven and-a-half lakhs, and this estimate was accepted though characterised by the Commissioner as "a very moderate one and well within the mark." I recommended a demand of Rs. 2,42,000 and increase of 79 per cent. and a term of 20 years, but this was raised to a demand of Rs. 2,70,000 and a term of 30 years; the new demand was an increase of 100 per cent., but absorbs only 36 per cent. of the half-net assets and has an incidence of Re. 0-9 5 per acre cropped. The announcement of the demand was well received as I was allowed to announce at the time that the term of settlement would be 30 years.

In this circle my estimate of the half-net assets Rs. 95,000 was accepted though considered moderate. The demand proposed by me, *viz.*, 26,000 fixed and 11,000 fluctuating *khush haisiyati* was accepted. The demand is an

increase of 50 per cent. and absorbs 39 per cent. of the half-net asset, the incidence per acre cropped is 8 annas 8 pies. The demand was well received.

I put the half-net assets of this circle at Rs. 45,000, but this estimate was reduced by the Financial Commissioner to Rs. 42,000. I proposed a fixed

Hithar, assessment of the type in vogue in the other riverain circles estimated to bring in Rs. 25,600 as compared with an average fluctuating demand of Rs. 27,000. My proposals, however, were not accepted, and my alternative proposal to maintain the existing fluctuating system with the same rates and give up the small fixed assessment imposed at last settlement on the waste was accepted. The estimated yield of the fluctuating system may now be put at Rs. 26,000, which is a decrease of 4 per cent. on the average realisations of the last eleven years, though practically the same as Mr. King's estimated yield of Rs. 26,064. Personally I am rather doubtful whether this average will be maintained as there has been a decline in the cultivated area, which I am inclined to think will be permanent. The estimated demand absorbs 62 per cent. of the half-net assets and has an incidence of nearly Re. 1-1-4 per acre cropped.

The people were very disappointed as they had hoped for a fixed assessment in place of the unpopular fluctuating system.

53. The following table compares the demand actually imposed in each circle with that sanctioned :—

1	2	3	4	5	6	7	8
Tahsil.	Assessment Circle.	Estimated fluctuating.	Demand sanctioned.	Fixed revenue actually imposed.	Initial demand.	DEFERRED ON ACCOUNT OF	
		Rs.	Rs.	Rs.	Rs.	Protective leases to wells.	Progressive assessment.
Moga	Rohi ...	...	4,40,000	4,39,083	3,45,222	388	93,475
	Grey Canals ...	8,500	98,000	97,736	87,982	129	9,625
	Mahraj ...	...	1,00,000	99,500	81,525	...	17,975
Zira	Rohi ...	7,723	1,52,278	1,52,275	1,40,211	1,609	10,455
	Bet ...	21,163	1,86,834	1,36,993	1,29,142	5,113	2,677
Ferozopore	Rohi ...	3,000	68,000	87,630	78,491	484	8,655
	Bet ...	11,000	62,000	61,777	59,396	2,006	375
Mamdot Jagir	Rohi ...	18,000	50,000	50,050	45,439	661	3,950
	Dhora ...	7,000	25,000	25,025	24,041	984	50
	Mamdot Bet ...	1,900	17,300	17,163	16,977	186	...
	Jalalabad Bet ...	9,000	28,000	28,359	27,709	650	...
Muktsar	Rohi ...	...	56,000	56,067	45,567	...	10,500
	Muktsar Utar ...	...	73,700	73,973	51,348	...	22,625
	Kot Kapura Utar ...	...	69,100	69,100	60,225	...	8,875
	Hithar ...	1,400	52,600	52,600	50,740	10	1,850
	Guru Har Sahai ...	8,700	16,900	16,915	15,148	117	1,650
Fazilka	Rohi ...	...	2,70,000	2,70,231	1,87,481	...	82,750
	Utar ...	11,000	26,000	26,105	20,306	99	5,700
	Hithar ...	26,000	...	...	...	...	...

NOTE.—Column 3.—The whole is fluctuating in Fazilka Hithar, elsewhere the *khush kaisyati*.

Column 5 is after deductions on account of objections accepted, and also includes market assessment which are not shown in column 4.

Column 6 is after deduction the amounts given in columns 7 and 8.

54. The following table shows the new demand as compared with the last year of the old demand and the increase forecasted :—

1	2	3	4	5	6	7	8	9	10	11	12
Tahsil.	Year.	OLD DEMAND.			NEW DEMAND.			INCREASE.			
		Fixed.	Fluctuating.	Total.	Fixed.	Fluctuating.	Total.	Forecasted.		Actual.	
								Amount.	Percentage.	Amount.	Percentage.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	
Moga ...	1911-12 ...	3,87,334	3,776	3,90,110	6,36,319	7,707	6,44,026	1,37,000	39½	2,53,916	66
Zira ...	1912-13 ...	2,24,306	12,876	2,37,182	2,69,207	28,891	3,18,098	45,000	20	80,916	34
Ferozepore ...	1912-13 ...	1,17,254	10,083	1,27,337	1,49,407	15,349	1,64,656	14,000	11	57,319	29
Mamdot ...	1912-13 ...	1,13,018	23,986	1,36,004	1,30,637	36,277	1,66,904	20,000	16	20,900	16
Muktsar ...	1912-13 ...	1,68,336	8,727	1,77,063	2,68,655	5,072	2,73,727	57,000	35	1,01,664	59
Fazilka ...	1913-14 ...	1,40,029	35,218	1,75,247	2,06,336	37,221	3,33,557	73,000	42	1,48,401	80
District ...	...	11,59,177	86,966	12,47,943	17,60,561	1,30,417	19,90,968	2,36,000	36	6,43,116	53

N.B.—The figures in column 10 are taken from the forecast report and are calculated on the inaccurate figures of the old demand given therein.

55. The following table shows the number of objections and appeals lodged against the new demand. Really the number of objections filed before the Settlement Officer is of very little value as a guide to the feelings with which the new demand was received as many of these objections are filed speculatively by individuals who happen to have business at the head-quarters of the district before the period of objection elapses. The real test I consider is the number of villages that take the trouble to prosecute an appeal before the Commissioner. Except in Moga where the number was swollen by the appeals lodged by the peasant *jagirdars* of the Mahraj circle against the treatment of the *nahri parta* as *khalsa*, the number of appeals was not large :—

Tract.	NUMBER OF OBJECTIONS.		NUMBER OF APPEALS TO			
	Total.	Accepted.	Commissioner.		Financial Commissioner.	
			Total.	Accepted.	Total.	Accepted.
Moga ...	122	4	44*	5	34	...
Ferozepore ...	45	1	15	2	8	...
Zira ...	48	...	12	...	2	...
Mamdot Jagir ...	16	...	2	...	...	...
Muktsar ...	20	...	3	...	...	...
Fazilka ...	24	...	...	•	•	...
Total ...	275	5	76	7	44	...

*Results of objections not yet available for Fazilka.

In the case of 23 of the Mahraj villages the Financial Commissioner while rejecting their appeals modified the progressive instalments, fixing the deferred instalments with regard to the amount of service commutation and *nahri-parta* to be paid by the *jagirdars* instead of with regard to the nominal demand.

56. Enquiries into the proposed method of distribution were instituted in each village by the Tahsildar during the hot weather prior to the announcement of the new demand. The previous method was explained to the people,

their statements were recorded, and proposals were made for the new *bach*. The files were then held over till the new demand was announced. As each village was informed of its new assessment the files thus prepared were produced, the statements of the revenue-payers were again recorded, and the method of distribution was sanctioned. In the few cases where the *bach* when completed and announced by holdings did not meet with the people's approval the method of distribution was reconsidered and altered where necessary. There were not more than a half dozen appeals against the method of distribution and none were accepted.

The following table shows briefly the method of *bach* adopted in the different tahsils :—

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Tahsil.	Kharij bach.	Zamindari khalsis or bilijmal.	By shares.	Sarsari on cultivation and banjar jaid.	Sarsari on all land.	By rates of burd-baramad.	Fluctuating.	Abiana of wells separately.	Nahri parta on nahri land.	IRRIGATED AND UNIRRI-GATED DIFFERENTIATED IN PROPORTIONS OF				Total.
										9-7.	10-6.	12-4.	Other.	
Moga	...	1	1	121	12	...	...	7	22	13	5	...	27	209
Zira	...	1	...	19	17	...	44	...	...	54	76	3	150	364
Ferozepore	...	1	6	19	45	...	25	...	9	52	38	...	20	215
Mamdot	66	37	32	...	46	...	1	1	40	...	95	318
Muktsar	9	5	96	18	...	...	25	4	3	...	8	168
Fazilka	...	10	5	34	...	...	59	...	200	...	3	...	11	322
Total	...	2	92	88	345	30	115	59	17	247	124	165	3	1,596

In Muktsar and Mahraj owing to the *nahri parta* being *khalsa* while the rest of the revenue is *jagir* it was necessary to place the *nahri parta* on the *nahri* land. Elsewhere the people were given a free hand in the distribution, and I only offered them advice, though where differences arose I fixed the method of *bach* as I thought fairest. The result of this is considerable diversity, but I believe also general satisfaction. The Jats especially are quite shrewd enough to know what suits them, and they generally were able to come to some agreement among themselves. In Fazilka where there had previously been a differentiation in the *bach* between *nahri* and *barani*, there was no difficulty in persuading the people to agree to the imposition of the *nahri parta* on the *nahri* land, but in the other tahsils this was not possible. In some parts of the Bet where Mr. Francis had separately fixed the *abiana* on each well there was some difficulty in persuading the people to adopt a general well rate, and in a few cases it was necessary to fix the *abiana* well by well. In the case of Ferozepore city with its large number of wells of very different quality I inspected every well and recorded a note on it; these notes are bound up as a separate volume and give full details as to each well. I finally rated the wells in nine classes with rates of *abiana* ranging from 8 annas to Rs. 2 per ghumao. The fact that only the owners of two out of the 171 wells objected shows the advantage of this method in such circumstances.

57. A term of 30 years has already been sanctioned for the Fazilka Tahsil and His Honour the Lieutenant-Governor announced its extension to the rest of the district at a Darbar held at Ferozepore on 20th January 1915. No

Term of settlement.

further orders are therefore required on this point. It should, however, be noted that the assessments have been announced subject to the condition that in the event of a new canal being constructed in this region from the Sutlej, Government reserves to itself the right to revise the present assessment before the expiry of the term of settlement if it thinks fit.

CHAPTER VI—OTHER MATTERS CONNECTED WITH THE REVENUE ASSESSMENT.

58. Among other matters pertaining to the revenue as imposed at the present settlement which may be conveniently dealt with in the present chapter is the question of alluvion diluvion assessments. After considerable correspondence on the subject rules for the working of these assessments have been sanctioned; these together with the rates in force in the various parts of the district have been printed as Appendix B to this report. The only substantial change made in the old assessment rules is as regards the treatment of *charand*; rule 3 deals with this, and will require the Collector's attention.

59. Proposals for rules as to the procedure to be observed in connection with the periodical revision of the *nahri parta* rules. *nahri parta* are now under the Financial Commissioner's consideration, and will eventually be printed as Appendix C. These rules will require very careful watching on the part of the district authorities.

60. Rules for the remission of the revenue on land that has been rendered unculturable by the spread of *kallar* have been sanctioned. These are printed as Appendix D.

61. The present system of fluctuating assessment in the Fazilka Hithar having been maintained unaltered except for the remission of the small fixed assessment on the waste no change has been made in the present working rules, which will be found in the Dastur-ul-Aml for the Fazilka Tahsil prepared by Mr. King.

62. Throughout the parts of the district under fixed assessment 20 years has been fixed as the term of protective leases. I have been ordered* to touch on the question of the grant of remissions of the *abiana* or difference between the wet and dry assessment in the case of wells that fall out of use. At last settlement it was ordered that no such remissions should be given in the Zira Tahsil. In view of the present assessment there is no reason for maintaining this restriction, and I have submitted a set of draft rules in accordance with which remissions should be given. If approved they should be printed as Appendix F.

In the Fazilka Hithar under the fluctuating system new masonry wells if sunk in land previously *barani* receive a concession of half rates for 20 years, if sunk in land already irrigated or subject to river flood the concession is limited to one-fourth for 20 years, while *kacha* wells and *jhallars* receive a concession of half rates for 2 years. The continuance of these concessions has been recommended. Certificates of exemption in accordance therewith should be promptly prepared as soon as a new well is brought into use as well sinking requires encouragement in this tract.

63. A scheme for regulating the grant of suspensions and remissions of the revenue now imposed has been submitted. It will be printed as Appendix E to this report, and may be commended to the attention of the Collector.

*Junior Secretary to the Financial Commissioners' No. 4214, dated 6th June 1914.

I need only remark here that in all cases of doubt a reference should be made to the village abstract note-book, wherein will be found the full statistics on which the assessment was based.

64. Special rates of assessment for land occupied by markets and residential and factory sites were sanctioned in the Muktsar and Fazilka Tahsils. Full details will be found in chapter IX of the Muktsar and chapter X of the Fazilka report.

65. Revenue assignments, both large *jagirs* and small *muafis*, are, as a consequence of the history of the district, numerous. The latter are very common in the eastern part of the district, rare in Muktsar Tahsil and non-existent in Fazilka ; one-fifth of the total revenue is assigned.

As soon as the revision of the record was well begun the work of revising all revenue assignments was taken in hand. The local investigation was done by the Tahsildars who were guided by detailed instructions issued from Sadr. In all tahsils except Moga we were able to complete the investigation and to obtain the orders of the Financial Commissioner or of Government before the new demand was announced and distributed.

Petty *muafis* at last settlement numbered close on seven hundred, but had been reduced in number by the beginning of this settlement to below five hundred. As the result of the present investigation 26 have been restored to their original position as village grants, being struck off the Government list, 53 have been cancelled for failure to fulfil the conditions of the grants, and small personal grants, which were attached to no institutions, were saddled with no services, and had no historical or public justification were resumed. No appeals were brought against these orders. In all cases of grants for terms of settlement for the maintenance of institutions, continuance for another term of settlement has been allowed under the orders of competent authority, where the institutions were properly maintained. Twenty-seven new grants have been made to three institutions.

The state of these petty grants is now as follows :—

Tahsil.	PERPETUAL WITHOUT CONDITIONS.		DURING MAINTENANCE OF INSTITUTIONS.		FOR LIFE OR LIVES.		FOR TERM OF SETTLEMENT.		TOTAL.	
	Number.	Value.	Number	Value.	Number	Value.	Number.	Value.	Number.	Value.
		Rs.		Rs.		Rs.		Rs.		Rs.
Ferozepore ...	...	...	24	324	1	40	10	149	35	518
Zira ...	1	50	114	445	5	33	49	693	169	1,221
Moga ...	35	254	49	1,093	49	860	21	619	154	2,326
Muktsar ...	...	...	5	59	...	...	1	55	6	114
Fazilka...	...	...	...	...	14	468	...	...	14	468
Total ...	36	304	192	1,921	69	901	81	1,516	378	4,642

There are many large jagirs in this district, the principal being the Mamdot Jagir and those held by the Bhais of Arnauli, Siddhowal and Jhumba,

and the Buttar Sodhis. The following table gives details of these and other large assignments :—

Name of jagir.	AMOUNT.		Total.
	Assigned.	Khalsa	
Mamdot	77,741	38,989	1,16,730
Bahia	49,247	14,328	63,575
Arnauli	35,054	11,584	46,638
Bahk Bodla	10,524	4,782	15,306
Guru Har Sahai	8,458	...	8,458
Siddhowal	8,859	3,208	12,062
Jhumba	6,482	1,808	8,290
Chakkon	5,321	1,929	7,250
Salina	3,456	494	3,950
Bhucho Khurd	2,968	782	3,750
Dharm Singhwala	3,625	...	3,625
Sahib Chand and Chhatiana	2,385	815	3,200
Buttar	2,384	116	2,500
Phidda	2,325	...	2,325
Theri	1,772	528	2,300
Dona Mattar and Gatti Mattar	1,121	...	1,121
Bankhandi	919	131	1,050
Khirkianwala and Bhullar	779	215	994
Sodhiwala and Mehr Singhwala	910	...	910
Boghi Pura	804	21	825
Atari	700	100	800
Jaggat Singhwala	572	...	572
Talwandi Mange Khan	174	...	174
Nilewala	171	...	171
Talwandi Jallo Khan	122	...	122
Mansurwal	50	...	50
Basian and Gatti Kamalke	39	...	39
Total ..	2,26,962	79,910	3,06,872

Among the large assignments mentioned above it should be noted that the whole of the proprietary body of the Bahya and Bhaike villages in the Mahraj circles are jagirdars of their own lands; the Bahya or Mahrajian section of them in 1912 numbered no less than 6,285 persons of whom only 3,864 were resident. No files concerning these assignments had been prepared, and it was found that these people had been alienating their lands, and that the alienees had been treated as jagirdars. This was reported to Government, but no orders have been received as yet. A similar state of affairs was found to exist in the village of Theri where the owners are the jagirdars; in this case the alienations have been condoned.

In connection with this part of the work I may remark that the files in the district office were very defective; in many cases no copy of the orders sanctioning the grant were forthcoming. These omissions have now been rectified as far as possible. New registers of all the *muafi* grants have been prepared in English and bound up, besides the regular vernacular *muafi* and *jagir* registers. If all changes that take place in future are promptly entered up much trouble will be avoided.

66. A uniform rate of cesses is in force, and has been accepted in the orders on each assessment report. The rate is Rs. 15-6-8 per cent. made up of 5 per cent. *lambardar's pachotra* and Rs. 10-6-8 local rate.

CHAPTER VII—MISCELLANEOUS.

67. At the commencement of the settlement a large number of candidates were selected and after passing through the patwari school were employed as settlement patwaris. Generally speaking, the district staff was fairly efficient, though there were a number of men who were really past work. The district kanungo candidates many of whom were employed throughout the settlement were of a distinctly good type on the whole. During the settlement 23 patwaris retired on gratuities at a cost of Rs. 3,120, 19 were dismissed and 21 reduced, while 1 resigned and 2 died. These vacancies were filled by district candidates who had worked in the settlement.

At the close of measurements proposals, which were sanctioned, were submitted for an increase of 4 in the number of Field Kanungos and 42 in the number of Patwaris and 3 in the number of assistant Patwaris. The distribution is now as follows :—

Tal sil.	Number of Field Kanungos.	NUMBER OF PATWARIS.			
		Grade I, Rs. 14	Grade II, Rs. 12.	Grade III, Rs. 10.	Assistant, Rs. 8
Moga	4	25	45	22	7
Ferozepore (including Nathana) ...	4	20	39	18	4
Zira	4	21	40	20	5
Muktsar	4	20	34	14	4
Fazilka	4	20	40	20	5
Total District	20	106	198	94	25

NOTE.—Of the first grade Patwaris 98 old incumbents draw Rs. 15 per mensem in place of Rs. 14 per mensem.

Generally speaking I think the Patwari staff will now be found to be a very fairly efficient body of men. The only tahsil where there is any difficulty in getting a sufficient number of good class candidates is Fazilka, and this can generally be filled up from Moga or Zira where would-be candidates are always in excess of the number of vacancies. I may note that at present some candidates from this district are working in the Jullundur, Montgomery and Gujrat settlements; care should be taken that their claims are not forgotten when their turn comes for appointment in this district.

68. A graded system of *zaildars* which previously existed only in the Fazilka Tahsil has now been introduced throughout the district, and the number of *safedposhes* will be equally distributed. Formerly some *zails*, especially in Moga, had several *safedposhes*, while others had none. It has now

been proposed that eventually there should be one safedposh in each zail, and in certain specified zails, where the work is very heavy, there should be two safedposhes. This scheme should be gradually brought into effect as some of the redundant safedposhes die off. Two new zails have been proposed in Zira and one in Muktsar Tahsil; slight re-adjustments of zail boundaries have also been made in Muktsar, Zira, Ferozepore and Fazilka Tahsils. If the slight modifications in thana boundaries which I have proposed are carried out, there will be only one zail, that of Jhumianwali in Fazilka, which lies in more than two thanas. Zail books have been prepared and deposited in the district office.

69. The lambardari arrangements of the district are generally satisfactory.

Lambardars.

It is only in the Moga Tahsil that there are too many lambardars. A register showing what lambardaris might be reduced in that tahsil as opportunity offers has been prepared and made over to the Deputy Commissioner. I would however remark that there is hardly any subject that arouse more ill-feeling than the reduction of a lambardari, and it is as well to proceed cautiously in such cases.

70. A report on the condition and future managements of the district

Grey Canals.

inundation or Grey Canals which play a most important rôle in the prosperity of the riverain circles was called for by Government. This was printed and submitted in October 1913. For further information regarding these canals reference should be made to that report.

71. There was no single code of customary law for the whole district. For

Riwaj-i-am.

the northern tahsils Mr. Francis prepared a code in 1885, and one prepared by Mr. Purser was available for Muktsar and Mamdot, while in Fazilka the old Sirsa code prepared by Sir James Wilson was in use. A new code for the whole of the district has now been prepared, and is at present in the press.

72. A new edition of the Gazetteer has been prepared and is now

Gazetteer.

73. New bilingual village note-books have been prepared for all

Village Note-books.

tahsils, and were introduced from Kharif 1912 in Moga, Kharif 1914 in Fazilka and all others in 1913. The first entry is the settlement entry which has been shown in special ink. In the crop statements the entry is for the years selected as the basis of assessment statistics. Soils have been shown in the details employed in circle assessments.

Circle and tahsil note-books have also been prepared in the same form. New abstract note-books have been prepared, the continuous form for each village having been sanctioned by the Financial Commissioner after consulting with the Director of Land Records, Punjab. Each volume contains about 15 villages. For each village there is first a map, then the Naksha Haisiat Deh, then the continuous statement, then the village inspection notes of the last and the present settlement, with assessment orders, and a note as to method of *bach*, and finally blank pages for the remarks of the Collector from time to time. The "Naksha Haisiat Deh" is the printed statement giving all the statistics necessary for the assessment. The books were prepared and the statements filled in before village inspections for assessments were begun. On reaching each village I first recorded rough notes on the faces of the maps, drawing attention to the physical features and soils of the village. I then discussed the condition of the village with the people and examined the lists of rents and alienations, and proceeded to record my inspection note immediately in the abstract note-book in the people's presence. These books should always be kept up at headquarters, and should on no account be sent to tahsils to be written up.

74. The trijunction pillars were generally found to be in bad condition, largely owing to the mischievous propensities of the herd boys. I should have

Trijunction pillars

liked to put in stone pillars, but the weight, which is about 14 maunds, practically prevents transport in some of the sandy parts of the district. Accordingly a trijunction pillar composed of a block of reinforced concrete costing Rs. 5 and weighing about 10 maunds has been introduced. Some 1,571 of these pillars have been put up. Other trijunction pillars have been repaired. Smaller stone pillars have been put in to mark the base lines in villages that have been remeasured and also to mark the base lines on both sides of the river in the case of villages remeasured with the aid of the Survey Department.

A sum of Rs. 7,330 was advanced for the cost of trijunction pillars, and the latest *plus* and *minus* memorandum (that for February 1915) received from the treasury shows an outstanding balance to be recovered of Rs. 2,121-6-9.

75. The records of Moga and Ferozepore tahsils have been filed at head-quarters, but pending the construction of the additions to the record-room

Records.

to which sanction has been obtained the records of the other tahsils will have to remain in the tahsil record rooms. The tahsil record rooms at Moga and Muktsar have been enlarged and improved, and all tahsils have now ample accommodation for the records. The maps have been filed in iron cupboards.

76. Mr. H. L. Shuttleworth came as Assistant Settlement Officer in December 1912, but left in the following May for the Delhra-Hamirpur

Notice of officers.

Settlement; he gave great assistance in supervising record and measurement work in Zira. He was succeeded in October 1912 by Mr L. Middleton, who took charge of the Zira tahsil which he assessed; his assessment work speaks for itself, and I found his advice and criticism most useful in other matters. Kunwar Raghubir Singh has acted as Extra Assistant Settlement Officer throughout the settlement except for two periods when he officiated as Under-Secretary to the Local Government and for a short period of privilege leave; I am under a considerable debt to him for efficient and impartial way in which he handled the subordinate staff, with the satisfactory result that the settlement was practically free from intrigue. He has now acquired a thorough knowledge of settlement work and procedure. I am greatly indebted to him for the loyal way in which he has carried out orders and for his hard work. During his absence Rai Sahib Nathu Mal and Pandit Nand Lal, Tikku, officiated for him; the latter did much hard work in the attestation of the *Rivaj-i-i-am* and has a thorough knowledge of settlement work. Of the settlement staff the best of the tahsildars were Lala Diwan Chand I in Moga and Lala Diwan Chand II Nayyar, in Muktsar, both of whom handled their subordinates extremely well and carried out the work of their respective tahsils in an efficient and expeditious manner; the former came to me already a candidate for the post of Extra Assistant Commissioner, and the latter, I am glad to say, has also been accepted as a candidate on my recommendation. No less than 45 Naib Tahsildars were attached to the settlement for longer or shorter periods; the maximum number employed at any one time being 20; many were here so short a time that one could form very definite opinion as to their capacity. Haji Muhammad Khan Chandia (retired) was the best, while others who did good work were Bir Singh and Sawan Singh (now both Tahsildars), Pandit Ikbāl Narain, Kifayat Ali, Ahmad Hassan, Khair-ud-Din and Hidayat Khan in the field. Among the office Naib Tahsildars Chaudhri Sadik Ali and Mehta Lekh Raj did excellent work as my reader at different times, Lala Shambhu Nath worked conscientiously throughout the settlement as Head Clerk except for two short periods of privilege leave. The district staff was also associated in settlement work and the following rendered considerable assistance—Tahsildars M. Fazl Muhammad of Moga and M. Anwar-ul-Hakk of Fazilka and Naib Tahsildars Pandit Sarwan Das in Fazilka, Lala Sundar Das at Abohar and Mirza Ikbāl

Hussain in Zira : Lala Diwan Chand (I) also carried out the *bach* of the Ferozepore tahsil while Mahal Tahsildar of Ferozepore. The Kanungos received at first were somewhat indifferent, but later arrivals were better and on the whole the kanungo staff worked well and loyally : unfortunately the present block of Kanungos rendered it impossible to give promotion to many who deserved it, and I was only successful in getting two men, residents of the district, accepted as Naib Tahsildar candidates. Lala Prabh Diyal, the District Sadr Kanungo deserves mention for the conscientious way in which he supervised the preparation of all the assessment statistics and also checked the *bach* files ; his work has been most valuable.

In all 122 kanungos passed through this settlement, the maximum employed at any one time being 92.

77. Four Assistant Commissioner received the usual course of settlement training. Two Extra Assistant Commissioners and two Indian gentlemen also were trained. Besides these six Munsif candidates, two Tahsildar candidates (one of them from Patiala), fifteen Naib Tahsildar candidates (of whom six came from Bahawalpur), and eight Kanungo candidates received the prescribed training. The majority of these men took an intelligent interest in their work and acquired a useful knowledge of land record work.

78. The cost of the settlement was estimated in the forecast report at Rs. 4,58,436, but this estimate did not include the appointment of an Assistant Settlement Officer and his establishment, while only a reduced establishment was provided for Fazilka Tahsil. Additional expenditure was also entailed by the retention of establishment in Moga, Muktsar and Ferozepore beyond the time fixed in the programme in consequence in the delay in the receipt of orders. The actual expenditure to the end of February 1915 has been Rs. 4,67,161 to which may be added a sum of Rs. 7,415 to cover the remaining expenditure up to the end of March. The total cost of the settlement may therefore be put at Rs 4,74,576 round. Of this sum jagirdars will pay some Rs. 32,643 according to the old method of calculating their contribution, but only Rs. 17,789 if the proposed new method be introduced. Thus the net cost to Government will have been either Rs. 4,41,933 or Rs. 4,56,787 which is considerably less than the annual increase in the revenue which will eventually amount to Rs 6,20,000 in round figures.

FEROZEPORE :
The 5th March 1915.

}

M. M. L. CURRIE,
Settlement Officer.

APPENDIX A.

PRINCIPAL GAZETTE NOTIFICATIONS REGARDING THE SETTLEMENT, FEROZEPORE.

No.	Date.	Subject.
<i>Settlement Officer.</i>		
2687 S. ...	29th September 1910.	Under section 49 (1), Act XVII. of 1887, notifies that with the sanction of the Governor-General in Council, a general re-assessment of the land revenue of the Ferozepore District is to be undertaken.
2688 S ...	Ditto	Directs that the record of rights of all the estates included in the Ferozepore District shall be especially revised.
1321 ...	8th November 1910	Mr. M. M. L. Currie assumed charge of the settlement and re-assessment operations on 3rd November 1910.
1304 A. ...	3rd November 1910	All the powers of a Collector under the Punjab Land Revenue Act (except those under chapter VI) conferred upon Mr. Currie,
1304 A. ...	Ditto	All the powers of a collector under the Punjab Tenancy Act similarly conferred.
140 ...	2nd February 1912...	Powers under section 27 of the Punjab Land Revenue Act of 1887 conferred for the purpose of defining riverain boundaries line within the limits of Lahore District.
654 ...	2nd October 1913 ...	Powers under section 27 of the Punjab Land Revenue Act of 1887 conferred for the purpose of defining riverain boundaries line within the limits of Montgomery district.
<i>Assistant Settlement Officer.</i>		
1430 ...	16th December 1911	Mr. H. L. H. Shuttleworth, Assistant Settlement Officer, assumed charge on 8th December 1911, afternoon.
1381 A ...	8th December 1911...	Powers conferred under section 27 of Land Revenue Act and under section 105 of Punjab Tenancy Act with the exception of chapter VI.
624 Gaz. ...	8th May 1912 ...	Powers conferred on Mr. Shuttleworth under section 27 of the Punjab Land Revenue Act, 1887, within the limits of Jullundur District.
738 ...	7th June 1912 ...	Mr. Shuttleworth transferred to Una as a Settlement Officer, with reference to the order contained in demi-official letter of Financial Commissioner and made over charge of his duties on 20th May 1912, afternoon.
1082 ...	16th October 1912 ...	Mr. L. Middleton Assistant Settlement Officer assumed charge of his duties on 2nd October 1912, forenoon.

**PRINCIPAL GAZETTE NOTIFICATIONS REGARDING THE SETTLEMENT
FEROZEPORE—CONCLUDED.**

No.	Date.	Subject.
	<i>Assistant Settlement Officer.</i> —concluded.	
1047 B. ...	2nd October 1912 ...	Powers conferred on Mr. Middleton under section 27 of the Punjab Land Revenue Act, 1887, except those under chapter VI.
1047 C. ...	Ditto	All the powers of a collector within the limits of Jullundur District.
237 ...	11th February 1914	Made over charge of the Office of Assistant Settlement Officer on 24th January 1914 afternoon.
		<i>Extra Assistant Settlement Officer.</i>
31 ...	11th January 1911...	Kanwar Raghbir Singh Extra Assistant Settlement Officer assumed charge of his duties on 18th December 1910, afternoon.
1514 D ...	18th December 1910	Powers under section 28, sub-section (1) of the Punjab Courts Act, 1884, as Munsif, 1st Grade.
1126 Gaz. ...	23rd August 1913 ...	Powers conferred on Kanwar Raghbir Singh by clause (b) of sub-section (4) of section 77 of the Punjab Tenancy Act.
497 ...	2nd April 1913 ...	Kanwar Raghbir Singh appointed to officiate Under-Secretary, Revenue Branch, and made over charge of his duties on 29th March 1913.
733 ...	7th May 1913 ...	Rai Nathu Mal in his absence appointed as an Extra Assistant Settlement Officer (<i>vide</i> No. 2424 dated 21st April 1913 from Commissioner, Jullundur Division) assumed charge of his duties on 24th April 1913, forenoon.
1054 ...	30th July 1913 ...	Rai Nathu Mal made over charge to Kanwar Raghbir Singh on 17th July 1913 forenoon.
830 ...	20th May 1914 ...	Kanwar Raghbir Singh appointed to officiate as Under-Secretary to Government, Punjab, Revenue Branch, and made over charge on 13th May 1914, afternoon, and Pandit Nand Lal appointed in his place who assumed charge of his duties on the same date.
895 Gaz. ...	17th June 1914 ...	Powers conferred to Pandit Nand Lal by Clause (b) of sub-section (4) of section 77 of the Punjab Tenancy Act.
1100 ...	16th September 1914.	Kanwar Raghbir Singh assumed charge of his duties again on 10th September 1914 forenoon.
1229 ...	28th October 1914 ...	One month's privilege leave granted to Kanwar Raghbir Singh who proceeded on leave on 14th October 1914, afternoon, and returned on 14th November 1914, forenoon. In his absence Pandit Nand Lal was appointed as an Extra Assistant Settlement Officer.
1344 ...	25th November 1914	

APPENDIX B.

ALLUVION AND DILUVION RULES FOR FERROZEPORE DISTRICT.

APPLICATION OF RULES.

These rules apply to land which is ordinarily affected by the river floods. Where part only of a village is under the rules the limits of that part have been marked on the map by a line. Land situated above that line is under fixed assessment, which will not be changed during the period of settlement on account of any changes in the cultivation until a reduction of the assessment be required on account of action of the river.

2. It is not intended that the limits above referred to shall be lightly changed; but if the Deputy Commissioner, upon the petition of the owners of any village, be satisfied that any considerable block of land has ceased to be benefited by inundation, he may order it to be removed from the application of the rules, and give it a fixed assessment at the dry rates stated hereafter. The limits of such block of land will be marked on the girdawari map, and a reference to the Deputy Commissioner's order will be given. Should such land afterwards regain the advantage of river inundation, it may by the same authority be again brought under the rules. Where reduction of assessment of land under fixed assessment is required by river action, the land will be brought under these rules.

3. The following is the schedule of crop rates to be used in making assessments:—

Class.	Kind of crops.	Rate per ghumao.	Per acre.
		Ra. A. P.	Annas.
I	Sugarcane, maize and wheat—		
	(i) Zira Tahsil—		
	(a) Above Harike Railway Bridge	1 4 0	24'20
	(b) Below Harike Railway Bridge	1 2 0	21'78
	(ii) Ferozepore Tahsil—		
	(a) Above Palla Megha	1 0 0	19'36
	(b) Below Palla Megha	0 14 0	16'94
	(iii) Muktsar Tahsil	0 14 0	16'94
II	Rice, moth, jowar, bajra, barley, gram, rape, other oilseeds, melons and other crops not specified—		
	In all tahsils	0 14 0	16'94
III	Mung, mash, massar, chnral, ajwain, methra, senji, chari and other fodder—		
	In all tahsils	0 8 0	9'68
IV	Charand in all tahsils	0 0 9	Pies. 10'89

The charand rate may be imposed by the Collector, at his discretion, on the report of the assessing officer, when the culturable area fit for grazing is considerable and exceeds 5,000 kanals. In such cases wholesquares should, as far as possible, be included in the area to be assessed to avoid unnecessary increase in field numbers.

4. The rate charged will be that for the highest class of crop which the land has shown itself capable of successfully producing. Thus, whenever land successfully produces a crop of a class chargeable at a higher rate than the rate before assessed on that land, the rate will be raised accordingly. But no reduction of assessment will be allowed on the ground of a crop of the lower class being grown in a subsequent year, unless it be proved that the land has since been injured by the action of the river, as, for instance, where the soil has been left too thin by the erosion of its upper surface or has been covered by a deposit of sand.

5. Where a crop chargeable at a higher rate than that hitherto paid is sown, but the yield is very poor, the land will be charged as if a crop of the next lower class had been successfully grown. When the crop is very bad for more than two years, it should be considered whether the soil has not been lowered in quality by the action of the floods.

6. When land previously under fixed assessment is brought under the rules the appropriate crop rates will be applied to all cultivated land and grazing land without reference to the previous assessment.

7. The classification of land should not be too minute. If different parts of a survey number grow different crops, or if two or more crops are mixed, the whole area under crop should be charged according to the crop which occupies the largest area or which constitutes the largest part of the mixture. There should not be two different crop rates in the same number.

8. In reckoning the revenue no fractions of a kanal will be regarded. Any fraction under a half kanal will be neglected, and any fraction not under a half kanal will be treated as a whole kanal.

SPECIAL RULES.

9. If the land attached to a well which was assessed at a lump sum be lost by diluvion, a part in whole rupees of the well assessment will be remitted in proportion to the area of well land which has been lost, and the distribution of assessment of the well may be modified. If the well itself be lost, the whole assessment upon it will be remitted.

10. Land taken up for inundation canal works within any part of a village affected by these rules will be treated as if rendered unculturable by river action.

11. The same will apply when, owing to the village homestead having been washed away, cultivated land has to be taken up for a new homestead.

PROCEDURE.

1. In every village which is wholly or partly under these rules there shall be an extra set of musavis prepared which shall be kept permanently with the patwari.

2. The riverain measurements should be started on 1st December in each year, and the completed files must be forwarded to head quarters not later than 31st January.

3. The measurements will start by the plotting of the deep stream bank on the permanent musavi. This will be shown by a red line, at each end of which will be written the English year. In the case of khalmar (diluvion) the line will be fixed by measuring up the remaining parts of fields which have been partly washed away and in the case of alluvion by measuring from the nearest fixed land-marks or by prolonging the squares from the base line of the village. Form B and the alluvion entries in form J will be prepared at this stage.

4. In the first year that these rules come into force in any village or part of a village the patwari shall prepare two tracings of the musavi in which the land concerned is situated on ordinary unbacked mapping sheets. These tracings will show the position of the river bank (in red), the limits of land sown during the year (by a broken black line), and the limits of unculturable land above the river bank (by a broken red line). One of these will form part of the annual riverain file and the other will remain with the patwari for use in the following year. The boundaries of sown and unculturable fields only will be shown on those tracings.

5. In each succeeding year the patwari will show on the tracing that has been kept by him from the preceding year the new position of the river bank, all new cultivation (by a dotted black line with the word nautor and the agricultural year written in the enclosed space), all land shown as sown in the previous year which has gone out of cultivation (by a dotted black line with the word khali and the year in the enclosed space), all land above the river bank that was culturable in the previous year and is now unculturable (by a dotted red line), with the word ghair-mumkin or banjar, as the case may be, and the year. He will make a copy of this tracing in the case of such sheets as have undergone changes. In this copy the present position of the river bank and the present limits of sown and unculturable land (in continuous lines of the colours above specified) will be shown. The previous year's map thus amended will form part of the annual file and the copy will be kept by the patwari for use in the following year. Half or quarter mapping sheets may be used if this will show all that is required.

6. After measuring up the alluvion and diluvion the patwari will go over the fields as at the girdawari, making the rabi entries in the khasra girdawari, but entering no detail of kharaba. Whilst doing this, he will amend the previous year's map as directed above, and will enter up the second, third and fourth parts of form J, that is to say, entries of (i) land newly brought under cultivation, (ii) lands which have risen from a lower to a higher class, and (iii) lands which have fallen from a higher to a lower class.

7. If part of the number was cultivated in the previous year, but the limits of the previous cultivation cannot be distinguished, the whole area under cultivation within the survey number must be measured anew and the previously cultivated area may be deducted.

8. After completing this field work in accordance with rules 3 to 7 the patwari will prepare form H from the girdawari.

9. Form D will then be prepared and must agree with forms B, J and H.

10. The kanungo will check all the measurements and all the statements which the patwari has filled up and will satisfy himself that the patwari has included in his maps and khasras all land which should be included.

11. After final attestation by the Tahsildar, Naib Tahsildar or Revenue Officer, forms A, B and D which form the annual file will be forwarded to the tahsil and thence to the district head-quarters. The patwari will keep a copy of form D and the second map for use in the next year; he will keep form H until the revenue has been collected, after which it will be forwarded for filing with the annual file.

12. In future the revenue and the area of the tract under riverain rules will be shown separately in the village and circle note-books.

13. Final orders on each file can be passed only by an officer exercising the powers of a Collector, but the Collectors of the district usually depute an Assistant Collector of the 1st grade to test finally the measurements and the assessment proposed before he passes his final confirming order. This officer's duty is to decide all boundary disputes and to satisfy himself as to the amount by which the assessment should be increased or diminished. If any corrections are made by his order, they will be made at once in the Government copies and the patwari will be ordered to correct his copies. The patwari will then prepare in duplicate a statement showing the result of the new assessment (form D) and will forward both copies to the Tahsildar through the kanungo. The Tahsildar will see that the statement agrees with the orders and, signing both copies, will file one with the record and return the other to the patwari. The latter will embody the new figures in future bachh papers.

14. The Revenue Assistant or other 1st grade Assistant Collector will note the area of charand, and if it exceeds 5,000 kanals, whether in his opinion it has any value as grazing land and should be assessed.

15. Form Z will be preserved continuously in a bound volume for the whole period of settlement. A copy will be filed every year of those numbers only of which the assessment is changed.

16. A list of fully assessed fields will be entered at the opposite end of register Z and any fields which from time to time become fully assessed will be added to the list and those no longer fully assessed will be struck out. This list will be totalled every year.

17. When the measurements are to be inspected by an officer the patwari should plant flags at all the corners and in the centre of each of the squares in which measurements have been made.

18. The whole dialluvion file should be prepared on Lucknow paper, stitched at the back in book form. The tracings of maps will be on sheets not exceeding the size of a regular mapping sheet, and they will be placed in an envelope the full size of the file and will not be folded more than twice.

19. The district statement of change in assessment due to river action will be prepared in the form (tahsilwar) prescribed by Standing Order No. 26.

20. Cases of destructive inundation should not be treated under these rules, as by them the growing crops only and not the land are injured. Reports concerning them should be made in form A appended to Standing Order No. 30.

FORMS.

FORM A.—*The map.*

FORM B.—*Diluvion khassa.*

[illegible]

NOTE.—1. Areas that have been previously under fixed assessment will be entered first and totalled, and then areas that have been under the rules.

2. Area calculations to be made by perpendicular and diagonal which will be entered below the dimensions as in an ordinary field book.

3. The settlement khasra numbering should be maintained throughout.

FORM D.—*Abstract statement of changes.*

[illegible]

Revenue for present year :—Fixed ; under riverain rules.

(1) Deductions and additions will be made in columns 4, 5, 6, 7, and 11 only, and must agree with the figures in forms B and J.

(2) Total of columns 4, 6 and 7 will be the total area of the village and cannot change.

(8) Columns 8, 9, 10 and 11 will be taken from form H, and their total must agree with column 7.

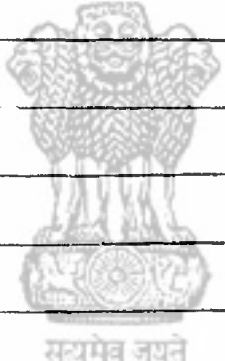
- (1) This register will be in the same detail as is usual in the revenue columns of the jamabandi.
- (2) This register will be compiled from the khasra giridawari.
- (3) In columns 4 to 12 the previous year's area and revenue will be shown in red ink ; the current year's in black ink.

FROM J.—*Khasra of alluvion, new cultivation and changes in assessable area.*

- (1) First enter all land newly thrown up by the river and total.
- (2) Then enter up all numbers in which there has been a change from culturable to unculturable and *vice versa*, and total.
- (3) Enter up all new cultivation, the sown area in column 5, and total.

FORM L.—Register of fields, assessed below, full rates and at full rates.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26		
Khasra No.	Name of proprietor and tenant, briefly.	SAMBAT 19 .				SAMBAT 19 .				SAMBAT 19 .				SAMBAT 19 .				SAMBAT 19				SAMBAT 19					
		Area culturable.	Kharif.	Rabi.	Rate.	Area cultivated.	Kharif.	Rabi.	Rate.	Area cultivated.	Kharif.	Rabi.	Rate.	Area cultivated.	Kharif.	Rabi.	Rate.	Area cultivated.	Kharif.	Rabi.	Rate.	Area cultivated.	Kharif.	Rabi.	Rate.		



111A

APPENDIX C.

Rules for the remission or imposition of nahri-parta on lands from which canal irrigation has been withdrawn or to which it has been extended.

ASSESSMENT RULES.

I.—Alterations in the land revenue demand assessed on lands irrigated from the Sirhind Canal will be made in accordance with changes in soil classification made in the year in which the quadrennial attestation of the jamabandi takes place.

Provided that the assessment may be revised at the attestation of the next succeeding jamabandi according to the soil classification then determined if it appears to the Collector that irrigation was not fully established at the preceding attestation.

II.—Changes in soil classification will be made in accordance with the instructions contained in Standing Order No. 23, paragraph 24, note to column 7, and the rule described in paragraph 5 of Appendix XX of the Settlement Manual, but the assessment will be revised only in the cases of alteration of outlets referred to in the following rules.

Provided that if any part of a field has been converted from barani to nahri or *vice versa* no change of classification shall take place if the area affected is less than one ghumao or in Fazilka Tahsil one pakka bigha.

III.—Alterations in the assessment will take effect from the kharif harvest following the attestation of the jamabandi.

Provided that the Collector may, with the approval of the Commissioner, direct that reductions in the assessment will take effect retrospectively from the harvest in which irrigation was withdrawn if the amount to be remitted is so considerable as to make it desirable to grant relief and the interval between the withdrawal of irrigation and the attestation of the jamabandi exceeds one year.

IV.—When an outlet is closed the nahri-parta on all land of which the classification has in consequence been altered from nahri or nahri-jhallari to barani shall be remitted.
Closure of outlet.

V.—When a new outlet is opened, the nahri-parta shall be imposed on all barani lands re-classified as nahri or nahri-jhallari.
Opening of a new outlet.

VI.—When the position of an existing outlet is so altered as to cause, in the opinion of the Collector, an appreciable alteration of the area benefited by canal irrigation the alteration shall be treated as the closing of an old and the opening of a new outlet.
Altered position of an outlet

VII.—When the size of an existing outlet is altered the nahri-parta shall be imposed on all increases and remitted on all decreases of nahri land.
Altered size of an outlet.

NOTE.—This rule applies also to a change in the shares on which two or more villages enjoy irrigation from a joint outlet.

VIII.—The nahri-parta to be applied to increases or decreases of recorded nahri area shall be the rate prescribed for the assessment circle in which the village is situated. These rates will be found in the annexed schedule.
Rates of nahri-parta.

PROCEDURE RULES.

I.—As soon as the *Rabi Girdawari* preceding the attestation of the jamabandi is complete the patwari will proceed to prepare from his khasra girdawari a list in the form given in Rule II (columns 1—10 only) showing fields converted from nahri to barani and *vice versa* in consequence of closure of old, opening of new or alteration of existing outlets. The field kanungo shall see that the list of fields is in accordance with these rules and shall sign it. The changes noted in the lists prepared under this rule shall be incorporated in the jamabandi and the field kanungo shall carefully check the entries and the totals of nahri and barani entered at the end of the jamabandi and shall attest them with his signature. In his note on changes in soil entries attached to the jamabandi he shall state exactly what he has done to ensure correct entries. In attesting jamabandis tahsildars and naib tahsildars must pay special attention to these new soil entries.

II.—On completion of the soil classification the patwari will prepare a list in the following form and forward it to the field kanungo. After it has been checked and signed by the

latter and by the revenue officer of the circle it will be forwarded to the tahsildar unless he is himself the revenue officer of the circle :—

List of fields converted from barani to nahri and vice versa with additional nahri assessment.

PATWARI CIRCLE							TAHSIL							FOR THE YEAR 191				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Serial No.	Topographical No.	Name of village.	Name or number of outlet.	Number of jamabandi holdings.	Name of owner with description (briefly).	Name of cultivator with description (briefly).	FIELD NUMBER AND AREA CONVERTED.				NAHRI ASSESSMENT.			NET INCREASE OR DECREASE OF NAHRI ASSESSMENT.				REMARKS.
							From Barani to Nahri..		From Nahri to Barani.		Rate.	To be imposed.	To be reduced.	Plus or minus.	Land revenue.	Cesses.	Total.	
Field No.	Area.	Field No.	Area.															

NOTES.—Columns 8 and 10.—If part of a field is affected the word "min" should be added.

Column 9 or 11.—In total of the village acres should also be noted in red ink.

Column 12.—For rates see Assessment Rule VIII.

Columns 13, 14, 16 and 18.—Detail of muafi, if any, should be noted in red ink.

III.—On receipt of the detailed statements mentioned in Rule II, the tahsildar shall have an abstract for the tahsil prepared in duplicate by the wasil baqi navis in the form below. A separate abstract will be prepared for each canal division concerned. After signature a copy of the abstract with the detailed statements will be forwarded by the tahsildar to the Collector so as to reach his office not later than July 31st.

Abstract showing nahri assessment payable on account of extensions of Canal Irrigation or remissible on account of reduction of the same in tahsil district for the year 191 .

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Serial No.	Topographical No.	Name of village.	Name or number of outlet.	ADDITIONAL NAHRI ASSESSMENT TO BE IMPOSED.			NAHRI ASSESSMENT TO BE REDUCED.		AMOUNT OF LAND REVENUE PAYABLE BY THE VILLAGE FROM KHARIF 191				
				Area in acres converted from barani to nahri.	Rate.	Land revenue.	Area in acres converted from nahri to barani.	Land revenue at rates given in columns 10-12.	Land revenue.		Cesses.	Total.	REMARKS.
									Khalasa.	Muafi.			

IV.—After the statements have been checked in his office the Collector shall report the amount of the assessment to be imposed and to be reduced through the Commissioner for the sanction of the Financial Commissioner and shall inform the Executive Engineer of the proposal made sending him at the same time the abstracts for information and return. On receipt of sanction he will return the detailed statements to the tahsildar, ordering him to have the addition to or the reduction from the assessment incorporated in the Kharif baekh.

V.—In incorporating the changes due to addition or reduction of assessment in the baekh the patwari shall, whether the assessment on nahri and barani is distributed at an all-round rate or by differential soil rates impose or reduce the nahri rate on or from the holdings affected, taking the details from the statement in Rule II.

VI.—Field kanungos and revenue officers must carefully check the patwaris' baekh work and see that above orders are correctly carried out.

APPENDIX D.

Rules for remissions of land revenue on fields affected by kallar sanctioned by Financial Commissioner in his Junior Secretary's No. 1043, dated 12th February 1914, received with Commissioner's No. 1189, dated 19th February 1914.

(1) At harvest inspection: Field Kanungos and Revenue officers shall pay special attention to fields assessed as cultivated at settlement which have become unculturable owing to *kallar*, and to fields on which the land revenue has been remitted owing to *kallar* which are again cultivated.

A.—General.

(2) When a new harvest inspection register is opened, column 5 shall show in red ink the class of soil at settlement in addition to the class of soil according to the last *Jama-bandi* provided that the latter differs from the former, e g., *ghair mumkin*, *nuhri*, *kallar*.

(3) Any field or part of a field, which owing to the spread of *kallar* has become unculturable shall be entered by the patwari in his harvest inspection register as *ghair-mumkin kallar*. Ordinarily such a field shall be deemed unculturable if it has not been cultivated for four successive harvests.

B.—Remission of land revenue on land becoming unculturable owing to *kallar*.

(4) During the progress of the *rabi girdawari* the patwari shall draw up in the form annexed (Form A) a list of fields newly entered during the year as *ghair-mumkin kallar*. Only those fields shall be entered of which the whole area is affected or if less than the whole area is affected, of which the area affected is not less than 1 *ghumao* (or *pocca bigha* in *Fazilka*).

(5) When complete the list shall be forwarded to the field kanungo which shall inspect any field entered therein which he has not already inspected at the harvest inspection, and then after checking and signing it shall forward it to the Revenue officer of the circle. The latter, after inspecting 50 per cent. of the fields entered in the list (if he has not already done so at the harvest inspection) and satisfying himself of its correctness, shall forward it to the *Tahsildar* if he is not himself the *Tahsildar*. The list should reach the *Tahsildar* not later than April 15th.

(6) The *Tahsildar* shall have an abstract prepared for his *tahsil* in Form B, and shall submit it together with the detailed lists to the Collector by April 20th.

(7) After passing orders on the proposals the Collector shall suspend the land revenue which he considers remissible, and shall submit to the Commissioner of the division a statement in the prescribed form for sanction to remit the sum in question.

(8) The suspension order passed by the Collector shall be at once communicated to the *tahsildar* who will give effect to the order in the harvest *bach*. On receipt of sanction to the proposed remission the amount shall be struck off the next fixed rent roll.

(9) During the *rabi girdawari* the patwari shall draw up a list in Form C of field or parts of fields on which the land revenue assessed at settlement has been remitted owing to *kallar* and which have been cultivated during the year. No entry shall be made in the list unless the whole field has been cultivated or where only part has been cultivated unless that part exceeds one *ghumao* or *pocca bigha*. At the time of making the entry a *parcha* in Form D shall be given by the Patwari to the person affected by the entry, or in his absence to the *lambardar*. Objections may be preferred to the *Tahsildar* by the person affected within 15 days of the delivery of the *parcha*.

(10) The lists, after being dealt with as in rule 5, shall reach to *Tahsildar* not later than April 15th. The *Tahsildar*, after disposing of objections (if any) shall prepare an abstract in Form E and submit it with the lists and objections to the Collector by April 30th.

(11) After passing orders the Collector shall prepare and submit to the Commissioner a statement in the prescribed form for sanction to the proposed increase of land revenue, shall return the abstract and lists to the *Tahsildar* with orders to collect the amount in question with the *rabi* instalment as fluctuating land revenue. On receipt of sanction the new land revenue shall be added to the next fixed rent roll.

(12) If the distribution of the revenue was by shares no remission should be given unless the sum to be remitted, calculated by an all round rate on the area cultivated at settlement amounts to Rs. 25 or 5 per cent. of the total village demand, whichever is less.

APPENDIX E.

No. 1406, dated Jullundur, 3rd-4th March 1915.

From—The Hon'ble Mr. P. J. FAGAN, I.C.S., Commissioner, Jullundur Division,
To—The Junior Secretary to the Financial Commissioners, Punjab.

I HAVE the honour to submit for orders copy of Settlement Officer Ferozepore's No. 289, dated the 11th February 1915, with enclosures, in which he deals fully with his proposals for the classification of the estates of the district as secure or insecure and for the future working of suspensions and remissions of land revenue so far as the latter subject is not governed by general standing orders.

2. Mr. Currie's division of the district into three belts characterised by broad distinguishing features is I consider sound and in accordance with actual conditions. His classification as between security and insecurity is based on this division. I consider it suitable and in particular I agree with him that belt I should be classed as insecure and that certain estates in Belt III must be similarly dealt with.

3. In calculating the harvest incidence the khush-haisiyati demand should obviously be included and I agree that in framing proposals for rabi suspensions the crop areas, demands and incidence of both harvests combined should be considered as well as that of the rabi alone.

4. The danger rates proposed by Mr. Currie broadly compare as follows :—

				<i>Kharrif.</i>	<i>Rabi.</i>
				Rs. A. P.	Rs. A. P.
Belt I	...	...	...	3 8 0	2 8 0
Belt II	...	...	...	...	<div style="display: inline-block; vertical-align: middle;"> { 2 0 0 2 8 0 3 0 0 </div>
Belt III	...	...	...	...	<div style="display: inline-block; vertical-align: middle;"> { 2 0 0 2 8 0 4 0 0 </div>

They are in nearly all cases more than double the corresponding crop incidence, but in view of the general marked leniency of the new assessment of the district they are not in my opinion too high. As rough guides to be used in the manner indicated in Standing Order No. 80, paragraph 22 (*ix*) they are I consider suitable. Mr. Currie is I think correct in laying down that kharrif suspensions will seldom be required in Belts II and III; though this will by no means be the case in Belt I. I agree generally in his remarks regarding rabi suspensions.

No. 289, dated 11th February 1915.

From—M. M. L. CURRIE, Esquire, I.C.S., Settlement Officer, Ferozepore,
To—The Commissioner, Jullundur Division.

As required by paragraphs 553 and 554 of the Settlement Manual, I have the honour to submit a scheme for the classification of the estates of the district into secure and insecure and for future working of suspensions and remissions of land revenue.

A similar scheme was submitted by Mr. Francis in his No. 649, dated 16th April 1895 (page 13 Financial Commissioner's Selections, new series 20). As far as Fazilka was concerned this was revised by Mr. King (*vide* No. LXXVII, Nos. 22 & 23, new series, page 16). In accordance with these schemes the danger rates at present in use are as follows :—

Name.				Per kanal.	Per acre.
				Rs. A. P.	Rs. A. P.
Ferozepore, Moga, Zira & Mamdot Jagir (except the Rohi)	...	...	...	6 3 0	1 13 0
Muktsar and Mamdot Rohi	...	...	...	0 2 0	1 3 3
Fazilka Rohi	...	...	...	...	1 4 0
Utar	...	...	...	...	0 14 0
Hithar	...	...	...	Entirely fluctuating.	

Nowhere is the khush-haisyati imposed on lands irrigated by the Grey Canals taken into account in calculating the danger rate.

Naturally the district falls into three natural belts running more or less parallel to the river.

The first is the riverain area which may be divided again into two parts—

- (a) The tract along the river bank directly exposed to river action which is included in the fluvial chaks of the various tahsils. This strip is about two or three miles broad as a rule. It is dependent for its harvest on the hot weather floods.
- (b) The Bet proper lying between the fluvial chak and the lower Danda. This belt varies in breadth from six to twelve miles. It is irrigated to some extent from wells but is largely dependent on the district inundation or Grey Canals.

These two tracts are comprised in the Zira, Ferozepore, Mamdot and Jalalabad Bet Circles, the Mamdot-Dhora and the Fazilka-Hithar, to which may be added the so-called Sotarya villages of the Mamdot Jagir Rohi.

(ii) The second tract may be described as the Lower Rohi or Mudki plain. It comprises the land lying between the lower Danda and the great Danda. The soil is generally sandy and the breadth varies from two to twenty miles. The bulk of the Zira Rohi, the Ferozepore Rohi, and Mamdot Rohi, the bulk of Guru Har Sahai, the Kot-Kapura, Muktsar Hithar and the Fazilka Utar Circles form this tract. Along the edge of the Bet tract there is irrigation from the Grey Canals and wells are used to a small extent, while in a few villages in the vicinity of the great Danda there is a little indifferent irrigation from the tail ends of Sirhind canal distributaries. The bulk of the tract depends however on the local rainfall but fortunately the soil of the circle is such that a slight rainfall is sufficient to produce fair crops.

(iii) The third belt is the upland which may be divided into two parts:—(a) The uplands proper a level plain of fairly firm loam requiring more irrigation and averaging some fifteen to twenty miles in breadth. It comprises the south-eastern part of the Zira Rohi, the bulk of the Moga-Rohi, and Grey Canals circles, the Muktsar and Kot-Kapura Utar circles and rather more than half the Fazilka Rohi. Except for the Zira Rohi and the northern part of the two Moga circles the whole is irrigated from the Sirhind Canal mainly from the Abohar branch: the Zira Rohi and Grey Canals circles also receive irrigation from the inundation canals, while in both these circles and in the Moga-Rohi well irrigation is also feasible. (b) *The Jangal*.—This is not clearly separated from the uplands proper but is characterised by a more sandy soil which is undulating and forms sandhills. It forms the south of the Moga and Fazilka Rohi circles and the whole of the Maharaj and Muktsar Rohi circles, practically every village receives irrigation from the Sirhind Canal mainly from the Bhatinda Branch. The annexed map* shows the general position of these belts.

* Not printed.

Speaking broadly I would class Belt I as insecure as these villages depend on river flood and the Grey Canals, the two remaining belts I would class as secure with the exception of certain villages in Moga and Zira, which receive no canal irrigation and are insufficiently protected by wells. I would also class as insecure certain villages in which the matured area is apt to fluctuate very widely. Generally because the irrigation facilities are somewhat indifferent. A list of these villages is given later.

Before proceeding to consider the danger rate for each particular assessment circle, there are two points that call for consideration. The first of these is the khush-haisyati; up-to-date this item has not been taken into consideration in framing proposals for suspensions and remissions. The khush-haisyati itself being now imposed only on matured crops will not require suspension or remission but the amount to be paid on this account should certainly be taken into consideration along with the fixed demand as both Mr. Middleton and I took it into consideration, in framing our village assessments. Mr. Francis did not take it into consideration on the ground that the patwaris would not have the necessary statements prepared in time, but I consider that normally there will be no difficulty in getting these statements prepared in time for such villages as may require consideration for suspensions or remissions. In this connection I may note that the date of the payment of the kharif instalments has been advanced from December to January 1915.

The second point to be borne in mind is that in most circles the proportions of the instalments are not the same in all villages. As generally speaking suspensions should only be given in kharif in special circumstances with which I will deal later, I do not think that this need cause any difficulty; all that will be necessary is to consider the crops and demand of both harvests together when dealing with proposals for rabi suspensions. I may note that at present in the Fazilka Rohi and Utar circles the proportions of the instalments are not

uniform ; Mr. King, however, does not seem to have provided for this in his scheme. I give an appendix showing what are the usual proportions of the instalments in each circle and giving a list of villages in which other proportions are in vogue. I also append a statement showing the average matured area on which the demand has been based and the demand and incidence of each harvest.

BELT I.

The Bet Circles, Fazilka Hithar and Mamdot Dhora.

Suspensions and remissions have been fairly common in these circles in the past, but in some cases the necessity arose from the fact that owing to continuous decline in the cultivated area owing to the spread of *shor* the village could even in good years hardly produce enough crops to clear the danger rate. With the introduction of the rule sanctioned for the remission of the revenue on lands affected by kallar this difficulty should disappear.

The prosperity of these circles is so dependent on the hot weather floods in the river and the consequent running of the inundation canals that they must be classed as insecure. As a matter of fact given an averagely high river this tract will do well enough, but of course in the event of the mouth of any canal silting up or a bad breach taking place near the head, the village dependent on that canal will want very careful watching. Throughout the tract except in the case of the Fazilka Hithar where most of the owners hold land also in the uplands, the people are badly off and have few resources, living a precarious and hand to mouth existence. Hence suspensions should be granted liberally and promptly. As rice is an important crop in many villages suspensions should be granted as readily in kharif as in rabi, but collections of arrears should be confined to rabi. Generally speaking suspensions will not be needed in villages included in the fluvial chak, but when given will probably be hard to collect owing to the comparatively high pitch of the assessment in these villages. In calculating the incidence of the demand of the harvest the khush-haisiyati demand should be added to the fixed assessment. The proportions of the revenue instalments vary considerably from village to village but are practically proportioned to the value of the harvest ; I therefore think the best plan will be to frame a uniform rate for kharif in each circle while for rabi danger rate should be calculated with reference to the incidence of the total annual demand to the total annual cropped area. The danger rates I would fix are therefore :—

Circle.	Normal kharif.	Incidence rabi.	Annual.	Percentage of half net assets.	DANGER RATE FOR	
					Kharif.	Rabi and Annual.
	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Zira Bet	2 1 11	0 14 10	1 4 5	49	3 8 0	2 8 0
Ferozpur Bet	1 5 11	1 1 0	1 4 10	56	3 8 0	2 8 0
Mamdot Bet	1 6 4	1 0 11	1 2 5	64	3 8 0	2 8 0
Jalalabad	1 15 2	0 15 8	1 8 0	56	3 8 0	2 8 0
Dhara	1 6 7	1 2 5	1 8 5	55	3 8 0	2 8 0

These rates may seem somewhat low but as above stated the people of this part have few resources.

As a matter of fact these danger rates must be regarded as merely the roughest of guides. Suspensions should not be granted if the incidence falls below the danger rate, but there are many villages *e.g.*, those that grow a good deal of sugarcane or those in the neighbourhood of the towns that grow vegetables that can and should pay considerably more. These can only be dealt with in the light of local knowledge. Roughly speaking I would say that there is no need to suspend revenue unless the incidence of the total annual demand on the total of the year's crops exceeds double the normal incidence of the demand fixed at settlement which is to be found in the village abstract note books.

I may note that there are a few villages where the normal incidence is much above the average owing to the retention of the whole or a part of the old assessment on the waste, such villages are Pir Ismail Khanwala, Chak Ghubiya, Taranwala, Chak Raoke, and some of the Nawab of Mamdot's chaks. This should be borne in mind when dealing with suspensions proposed for such villages. There are also a few villages which will require suspensions in

kharif in what are good years for the rest of the circle; these are lowlying villages which suffer from swamping in years of good rainfall and high canal supply.

As the fluctuative system has been maintained in the Fazilka Hithar, no danger rate is necessary from that circle and it may be treated as secure.

BELT II.—THE MUDKI PLAIN OR LOWER ROHI.

Rohi circles of Zira, Ferozepore, and Mamdot Jagir and the Guru Har Sahai, Muktsar and Fazilka Utar circles.

This tract has a light and sandy soil and hence requires little rain to enable it to produce some sort of a crop. Well irrigation is scanty and only a small area is irrigated from the Grey Canal. I am inclined despite the lack of irrigation to class the whole of this tract as secure from the point of view of revenue payment. It is only in years of abnormal drought that there is a total failure or shortage of crops and the demand is everywhere light. The rabi is the only harvest that is of importance throughout the tract. No suspensions should ever be given in kharif unless the previous rabi demand has been suspended. Many villages pay the whole of their revenue in rabi, a most suitable arrangement for this tract. Suspensions should be given after a bad rabi as a rule but much depends on the character of the owners of individual villages and their resources. The danger rate should be calculated for the rabi harvest on the year's crops and as elsewhere kush-haisiyati should be taken into account where realised. The following table shows the normal incidence in each circle together with the danger rate I would propose:—

Circle.	Normal incidence per acre cropped.	Percentage of half net assets.	Danger rate per acre cropped.
	Rs. A. P.		Rs. A. P.
Zira Rohi	1 4 6	35	3 0 0
Ferozepore Rohi	1 1 2	30	3 0 0
Mamdot Rohi	1 0 0	41	2 8 0
Guru Har Sahai	0 14 7	41	2 8 0
Muktsar Hithar	0 10 6	39	2 8 0
Fazilka Utar	0 8 8	39	2 0 0

I may note that suspensions will not be required in most of the Guru Har Sahai villages as the owners are the jagirdars and take their rents in kind; the same remark applies to the villages of Sirwali, Wangal and Jagat Singhwala in the Muktsar Hithar owned by Sodhi jagirdars.

Though falling in this belt the villages of Lohgarh and Daya Kalan in the Zira Rohi circle were considered insecure by Mr. Middleton.

BELT III.—THE KOT-KAPURA PLATEAU OR UPPER ROHI.

Moga Rohi and Grey Canals, Mahraj, Muktsar Rohi and Utar, Kot-Kapura Utar, and Fazilka Rohi.

The whole of this tract may be classed as generally secure as with the exception of the north-east of the Moga Rohi and the greater part of the Grey Canals circles it is commanded by the Sirhind Canal. The two localities mentioned as unprotected by the Sirhind Canal are those with the best rainfall and also have a certain amount of well irrigation, while the Grey Canals Circle receives some irrigation from the inundation canals. I therefore consider that the tract may be classed as secure as a whole. I would, however, class as insecure those villages in which the matured area is subject to wide fluctuations. Such villages are generally those at the tail ends of channels, and the recent alterations in certain distributaries may tend to produce greater steadiness.

The whole of the Mahraj circle being jagir only such villages need be noted where the owners are not the jagirdars.

Most of the villages which have the least irrigation, are fortunately light uneven, sandy villages which will produce crops of a sort with very little rain. On the above basis the following are the villages I would class as insecure.

Moga Rohi.

Bughipura, Changawan, Paranewala, Kokri Kalan, Kokri Phula Singu, Singhanwala, Langiana Nawan, Langiana Purana, Gil Jai Singhwala, Burj Duna, Daudhar, Lopen,

Raoke kalan, Demru khurd, Kishengarh, Dina, Ghaziana, Khai, Patte Hira Singh, Ransi khurd, Ransi kalan, Nihal Singhwala, Mahdevke, Saidoke, Himmatpura, Boda, Lohara, Bhagike, Rama, Machike.

Moga Grey Canals.

Moga Mahla Singh, Moga Jit Singh, Bara Ghar, *Ratian*, Baghelewala, Thammanwala, Mangewala.

Moga Maharaj.

Joga Nand, Mahna, Gobindpura, *Dhitwan*, Bhucho kalan, *Tungwali*.

Mukhtsar Rohi.

Sahib Chand, Madir, Buttar, Bakhuha, Huenar.

Mukhtsar Utar.

Ratta Khera, Chak Khokhar.

NOTE.—The owners of Chak Khokhar also own Khokhar and the circumstances of both the villages should be considered together.

Kot-Kapura Utar.

Bhalsiana.

Fazilka Rohi.

Kilanwali, Banwala Annu, Baring Khera, Hakuwala, Kaklikhanwali, Jodhpur, Bhagsar, Khairpur, Bishanpur, Shergarh, Sherewala, D hinganwali, *Usman Khera*, *Ramkot Bhedkot*, Katehra, Islamwala.

In the above lists villages which either from the weakness of the proprietary body or other reasons require especial consideration have been italicised. With the exception of these villages it will not be as a rule necessary to suspend the revenue at the first bad rabi unless it is very greatly in excess of the proposed danger rate. The kharif is unimportant. If there are two successive bad rabis then the revenue should be suspended, but except in the case perhaps of the villages italicised remissions should never be required. In the circles, however, where holdings are smaller suspensions may be required at the first really bad rabi. Suspensions should only be given in kharif if the previous rabi demand has exceeded the danger rate.

Arrears can be collected with the first good rabi harvest up to the limit of double the normal demand.

The normal incidence of these circles and the danger rate I propose are given in the following table :—

Circle.				Normal incidence per acre cropped.	Percentage of half net assets.	Danger rate per acre cropped.
				Rs. A. P.		Rs. A. P.
Moga Rohi	...	...	...	1 9 0	40	4 0 0
Grey Canals	...	...	...	1 7 9	41	4 0 0
Maharaj	...	...	...	1 3 6	40	2 8 0
Mukhtsar Rohi	...	...	...	0 14 7	41	2 8 0
Mukhtsar Utar	...	...	...	0 15 7	37	2 8 0
Kot-Kapura Utar	...	...	...	1 0 7	35	2 8 0
Fazilka Rohi	...	...	...	0 9 6	36	2 0 0

Belt No. I and other insecure villages are coloured green on the map,* while the very insecure villages are coloured red.

The area under the fluctuating system is coloured yellow.

* Not printed.

Statement showing the cropped areas, final demand and incidence for each harvest by Assessment Circles.

	Assessment Circle.	AVERAGE MATURED AREA OF SELECTED YEARS.				FINAL DEMAND AND INCIDENCE.				ANNUAL.			
		Kharif.	Rabi.	Annual.	Fixed.	Kharif		Rabi.		Incidence.	Fixed.	Khush halsiyati.	
						Acres.	Incidence.	Fixed.	Acres.				
													Khush halsiyati.	Acres.
Tahsil.						Acres.	Rs. A. P.	Acres.	Acres.	Rs. A. P.	Acres.	Incidence.	
MODA.	Rohi	94,017	180,724	274,741	219,541	...	3 5 4	219,542	...	1 3 5	439,083	...	1 9 7
	Grey Canals	20,657	51,165	71,822	48,868	5,239	2 9 11	48,863	2,468	1 6 1	97,736	7,707	1 7 6
	Mahraj	21,388	60,178	81,466	49,750	...	2 5 3	49,750	...	0 13 3	99,500	...	1 3 7
ZIRA.	Rohi	25,691	94,402	120,093	57,563	4,108	2 6 5	94,712	3,617	1 0 8	152,275	7,725	1 5 4
	Bet	36,176	88,015	124,191	68,867	12,805	2 1 11	73,065	8,361	0 14 10	136,932	21,166	1 4 4
PEROZ.	Rohi	10,163	75,407	85,568	33,927	2,149	3 8 10	53,703	1,079	0 11 7	87,630	3,228	1 1 0
	Bet	15,040	41,179	56,219	21,582	8,421	1 15 11	40,195	3,600	1 1 0	61,777	12,021	1 5 0
MANDOT	Rohi	11,850	56,413	68,263	16,847	8,631	2 2 5	33,203	9,646	0 12 2	50,050	18,277	1 0 0
	Dhora	6,648	19,699	26,347	6,710	3,688	1 6 7	19,315	3,414	1 2 5	25,025	7,103	1 3 6
	Mamdot Bet	4,305	12,419	16,724	5,009	995	1 6 4	12,154	955	1 0 11	17,163	1,960	1 2 4
	Jalalabad Bet	7,066	24,069	31,135	9,464	4,307	1 15 2	18,925	4,631	0 15 8	28,389	8,938	1 3 2
MUKTSAR.	Rohi	17,266	44,232	61,548	28,033	...	1 10 0	28,034	...	0 10 2	56,067	...	0 14 7
	Muktsar Utar	22,261	53,812	75,573	37,131	...	1 10 8	36,843	...	0 11 1	73,973	...	0 15 8
	Kot-Kapura Utar	19,937	46,611	66,548	34,550	...	1 11 9	34,550	...	0 11 10	69,100	...	1 0 7
	Hithar	7,616	76,710	84,326	21,641	701	2 4 11	30,959	668	0 6 7	52,600	1,369	0 10 3
FAZILKA.	Gur Har Sahai	2,103	20,538	22,641	5,132	922	2 14 1	11,783	2,781	0 11 4	16,915	3,703	0 14 7
	Rohi	136,692	320,370	457,062	132,914	...	0 15 7	137,086	...	0 6 10	270,000	...	0 9 5
	Utar	12,921	55,081	68,002	5,047	4,252	0 11 6	20,953	6,969	0 8 1	26,000	11,221	0 8 2
	Hithar	...	...	...	...	...	...	...	...	...	...	...	...

M. M. L. CURRIE,
Settlement Officer, Ferozepore.

Statement showing the rates of revenue instalments.

Tahsil.			Circle.		Rate.		Number of villages.
					Kharif.	Rabi.	
					Rs. A. P.	Rs. A. P.	
Moga	...	...	Grey Canal	...	0 8 0	0 8 0	45
Do.	...	...	Rohi	...	0 8 0	0 8 0	227
Do.	...	...	Mahraj	...	0 8 0	0 8 0	37

TAHSIL FEROZEPUR—BET.

Kharif ...	Re. 0-6-0.	Re. 0-8-0.	Re. 0-4-0.	Nil.
Rabi ...	Re. 0-10-0.	Re. 0-8-0.	Re. 0-12-0.	Full.
	96	8. Aliwala. 27. Sanda Mauja. 51. Bhagwanpura. 89. Fattuwalla. 95. Khalchi Jadid. 98. Luthar. 109. Theh. 115. Rukana Mongla. 118. Futewala. 124. Dastul Sahibwala. 127. Kakuwala. 130. Yare Shahwala. 132. Sher Khanwala. 134. Naja Shah Misri. 135. Kul Gadhi. 137. Rukna Shahwala. 138. Sadhu Shahwala. 139. Chugattewala. 140. Changali Jadid. 141. Faridewala. 20	10. Kaluwala. 14-1. Hamadwala. 28. Tili Saida Sahu. 38. Kamalwala. 39. Alewala. 54. Bhamba Singhwala. 63. Gatti Rahemeke. 73. Jalalwala. 78. Khai. 87. Miran Shah Nur. 10 •	3. Ruknewala. 4. Gurdittiwala. 5. Bora Fatta. 6. Jaimalwala. 13. Kamala Bodla. 14. Baghuwala. 16. Faridewala. 17. Baggowala. 18. Usmanwala. 22. Arifke. 23. Baghwala. 24. Sultanwala. 36. Mastake Hithar. 40. Akwala. 41. Lakha Bubna. 15

TAHSIL FEROZEPUR—ROHI.

Kharif ...	Re. 0-8-0.	Re. 0-8-0.	Nil.
Rabi ...	Re. 0-8-0.	Re. 0-10-0.	Full.
	50	168. Bara Jawahir Singh. 185. Kalyawala. 217. Dhira Patra. 3	146. Bhai Gulab Singhwala. 148. Kada Bora. 152. Machhiwara. 155. Karmunwala. 158. Mohkamwala. 157. Arazi Kotarya. 159. Thethar Kalan. 161. Naraingarh. 162. Sulhani. 191. Khwaja Kharak. 192. Saranwali. 205. Bhangar. 208. Sappanwali. 207. Wan. 209. Rukna Begu. 210. Kasu Begu. 211. Bajewala. 212. Bazidpur. 213. Nurpur. 216. Bukkan Khanwala. 20 Total.

TAHSIL FEROZEPUR—ROHI MAMDOT.

Kharif ...	Rs. 0-6-0.	Re. 0-8-0.	Re. 0-4-0.	Nil.
Rabi ...	Re. 0 10-0.	Re. 0-8-0.	Re. 0-12-0.	Full.
	12	Nil.	224. Bharoli Bhan. 226. Tara Singhwala.	219. Ghulam Patro. 223. Malhuwala. 225. Dod. 227. Machhiwara. 230. Theh Gujran. 234. Burj Makhan Singhwala. 238. Koir Singhwala.
			2	7

TAHSIL FEROZEPUR - DHORA MAMDOT.

Kharif ...	Re. 0 6 0	Re. 0 8 0	Re. 0 4 0	Nil.
Rabi ...	Re. 0 10 0	Re. 0 8 0	Re. 0 12 0	Full.
	19	Nil.	230. Chak Somianwala. 240. Chak Maben Har Chak Dhandi. 242. Hamad. 243. Malsinh. 245. Betu Kadim. 251. Kari Khurd. 252. Lakhoke Bahram. 257. Kari Kalan. 259. Mohre. 263. Killi. 264. Nawan Killa. 266. Sodhewala. 267. Khangarh. 268. Bhure Khurd. 270. Phularwan. 277. Tibbi Kalan. 16	241. Dhandi Gudar. 244. Daryeke. 246. Lodhra. 247. Alfuke. 248. Alike Jhugiyar. 250. Sharinhwala. 258. Tur. 261. Jang. 262. Buttar. 9

TAHSIL FEROZEPUR—BET MAMDOT.

Kharif ...	Re. 0 6 0	Re. 0 8 0	Re. 0 4 0	Nil.
Rabi ...	Re. 0 10 0	Re. 0 8 0	Re. 0 12 0	Full.
	41	Nil.	286. Bhama Haji. 290. Midda Haji. 297. Mahla Rahimeke Utar. 298. Chhanga Khurd. 301. Rahimeke Utar. 302. Lakhmerke Utar. 304. Jodhpur. 310. Jama Rakhiya Utar. 312. Khundar Utar. 313. Raoko Utar. 322. Dhandi Ahmad. 326. Megha Mahtam. 336. Khundar Hithar. 337. Jama Rakhiya Hithar. 339. Hazara Singhwala. 342. Lakhmirke Hithar. 345. Rahimeke Hithar. 348. Malha Rahimeke Hithar. 358. Gatti Basti Masti. 360. Duni Khundar. 20	284. Nihala Kilcha. 285. Gandhu Kilcha Utar. 287. Rohela Haji Utar. 288. Chak Sotarya. 296. Pojo ki Utar. 308. Lakha Singhwala Utar. 309. Chak Sawai Khurd. 314. Bodal. 315. Mirza Lakhoke. 317. Atu Wal Utar. 320. Wadi. 327. Atuwai Hithar. 340. Lakha Singh Hithar. 348. Pojo ki Hithar. 353. Rohela Haji Hithar. 363. Duna Rahmatwala 16

TANSIL MUKTSAR—ROHI MUKTSAR.

Kharif. Rabi.	Re. 0 8 0 Re. 0 8 0	Re. 0 6 0 Re. 0 10 0	Nil. Full.	
	29 40 48	38. Phulewala ... 116. Janisar ... 120. Chak Saidoke	121. Rattewala ... 122. Roranwala. 123. Bara Ghanga. 124. Ghanga Khurd. 125. Lauhuwala. 130. Chak Jawahrewala. 139. Lobanianwala. 140. Marh Malhu.	Muktsar ... Kot Kapura Hithar.
		2	8	
	26 9	Nil. Nil.	155. Sharinhwala 156. Kahn Singhwala ... 157. Lapon. 159. Ranjitgarh. 164. Chugha.	Kot Kapura Utar. Guru Har Sahai.
		5	5	
	Nil.		Nil.	Dhora Jalalabad.

Name.	Re. 0 6 0 Re. 0 10 0	Re. 0 8 0 Re. 0 8 0	Re. 0 4 0 Re. 0 12 0	Nil. Full.
Rohi Jalalabad	56	215. Khuranj	202. Dhaban Karyal. 211. Jhandwala.	218. Roranwala.
		2		
Det Jalalabad	87	273. Sher Muhammad Mahigir	243. Lamochar Khurd. 245. Lamochar Kalan. 248. Sukhera Utar. 282. Badalke Utar. 283. Duleke abad Utar. 286. Sawaya Mahtam Utar. 322. Do. Hithar. 331. Duleke Nathuwala. 333. Badalke Hithar. 334. Fattuwala.	244. Manjewala Utar. 255. Alamke Utar. 287. Isa Panjgrain Utar. 295. Megha Pan grain Utar. 311. Do. do. Hithar. 315. Ilahi Bakhsh Bodla. 317. Gudar Panjgrain. 318. Duna do. 320. Rana Panjgrain. 342. Chak Mahmud Khanke. 343. Bodal Pireke. 352. Arazi Hasal. 361. Lamochar Kalan Hithar.
			10	13

TANSIL ZIRA—CIRCLE BET.

Kharif ...	Re. 0-8-0.	Rs. 2-5-0.	Rs. 1-3-0.	$\frac{1}{4}$	Nil.
Rabi ...	Re. 0-8-0.	Rs. 3-5-0.	Rs. 2-3-0.	$\frac{3}{4}$	Full.
	216	1. Mallanwala 11. Lauhke Khurd. 12. Jaura ... 13. Mano Chabil 40. Killi Godah 42A. Bagga Bodal 42B. Bagga Tanna 43. Arazi Sabra	4. Burewala. 6. Kohala. 7. Borawali. 14. Sadhara. 17. Asafwala. 19. Masyeke. 24. Butewala. 25. Jatanwali. 26. Hashmatwala	2. Hamidwala. 3. Gurdittiwala. 5. Bhagoke. 22. Asiahke. 23. Roda Jallewala 5	15. Malhuwalia-wala. 16. Hamidwala Hithar. 18. Kamalwala. 20. Katakawala. 21. Alawala. 179. Dargah Sayadan. 6

TAHSIL ZIRA—CIRCLE BET—concluded.

Kharif ...	Re 0-8-0.	Rs. 1-5-0.	Re. 1-3-0.	$\frac{1}{2}$	Nil.
Rabi ...	Re. 0-8-0.	Rs. 3-5-0.	Rs. 2-3-0.	$\frac{1}{2}$	Full.
		44. Ghuram ... 47. Baharwal ... 70. Kalhewala... 153. Nurpur ... 12	27. Thatha. 29. Laubke Kalan 39. Midda Ni- halke. 41. Fatehgarh Sabra. 45. Gatta Bad- shah. 48. Padhri. 67. Bir Sarkar. 69. Manjwala. 71. Bhupewala. 74. Mamnewala. 75. Shahdinwala. 80. Manu Machhi. 138. Malhewala 145. Dhandiyan. 155. Sher Singh- wala. 156. Awan. 208. Milak Kangan 214. Daulewala Khurd. 241. Barahamke. 212. Musewala. 29		

TAHSIL ZIRA—CIRCLE ROHI.

Kharif ...	Re. 1-3-0.	Rs. 2-5-0	Re. 0-8-0.	$\frac{1}{2}$	Nil.
Rabi ...	Rs. 2-3-0.	Rs. 3-5-0.	Re. 0-8-0.	$\frac{3}{4}$	Full.
	48	341. Mianwala Purana. 343. Gidriwala. 345. Pheroke. 346. Miyanwali Nawan. <hr/> 4 <hr/>	278. Kishenpur Khurd. 279. Kishenpur Kalan. 280. Daya Purana. 281. Talwandi Malyan. 283. Kokri Bhaine- wal. 286. Indargarh. 288. Lohgarh. 289. Baduwal. 290. Dharmkot. 291. Jalalabad. 296. Farah. 303. Khosa Ran- dhir. 304. Jalal Singh- wala. 307. Gagra. 308. Chima. 309. Nasirpur Janyan. 311. Nihalgarh. 312. Talwandi Naubahar. 316. Ban Khandi. 318. Qhubar Chak. 319. Laungo Dewa 320. Bara Chain Singh. 321. Umaryana. 322. Munawan. 323. Talwandi Jalle Khan. 324. Talwandi Manghe Khan. 326. Sukhewala. 332. Sunehr. 355. Markhai. <hr/> 29 <hr/>	285. Bhindar Khurd. 325. Jhatra. 342. Lahra. — 3 —	315. Ranyal. 317. Atari. 334. Barah Man- surwal. 347. Barnala. 354. Mihan Singh- wala. 359. Wirkanwali. 360. Holanwali. 361. Wara War- yam Singh- wala. 362. Mankianwali 364. Marur. 372. Joyanwala.

TAHSIL FAZILKA—CIRCLE ROHI.

Kharif ...	Re. 0-5-0	Re. 0-4-0.	Re. 0-6-0.	Full kharif.	Nil.
Rabi ...	Re 0-8-0	Re. 0-12-0.	Re. 0-10-0.	Nil.	Full rabi.
	191	Aulak. <u>1</u>	Patti Karam. Dabwala Koilan. Arniwala Sheikh Subban. Khuian Sarwar. Ramgarh. Katorewala. Ghollu. <u>7</u>	Shergarh. Usman Khera. <u>2</u>	Bhagsar. Subhanpore. Amarpura. Ramkot. <u>4</u>

TAHSIL FAZILKA CIRCLE UTAR.

Full Rabi.	Re. 0-8-0. Re 0-8-0.	Re. 0-6-0. Re. 0-10-0.
29	Roranwala. Shajrana. Jandwala Khitra. Banwala Hanwanta. Fazilka. Gandri. Penchawali. Karni Khera. <u>8</u>	Sudhuana. Aliana. Nokerian. Halimwala. Pakhiwala. Chak Kheowali. Jorki. Ujhanwali. Hauz Khas Tarobri. Ahal (Jhok). Dipulana. Theh Kalandar. Lalanwala. Chuhriwala Chishti. Karianwala. Chak Banwala. Chak Dabwala. Chuhlanwala. Tahliwala Bodla. Kabul Shab. <u>21</u>

M. M. L. CURRIE,

Settlement Officer, Ferozepore.

No. 2527, dated Lahore, 31st March 1915.

From—J. M. DUNNETT, Esquire, I.C.S., Junior Secretary to the Financial Commissioners, Punjab,

To—The Commissioner, Jullundur Division.

IN reply to your letter No. 1406, dated 3rd March 1915, submitting proposals for the classification of secure and insecure areas in the Ferozepore District, I am directed to say that Mr. Currie's scheme has not been drawn up closely

The Hon'ble Mr. A. H. DIACK, C.V.O.
on the lines indicated in paragraph 22 (ii) of Standing Order No. 80, and that is to be regretted as it consequently loses in clearness. But it is too late to have it recast and it is valuable as an exposition of Mr. Currie's views as to the manner in which his settlement should be worked and the Financial Commissioner agrees with you in approving the principles laid down in it and the danger rates and the proposed method of using them.

FORM A.

LIST OF FIELDS DAMAGED BY KALLAR REQUIRING REMISSION
OF FIXED LAND REVENUE IN PATWARI CIRCLE No. _____
TAHSIL _____ DISTRICT FEROZEPORE, FOR
RABI 19

1	2	3	4	5	6	7	8	9	10	11
Serial No.	Name of village with topographical No.	No of holding of last jamabandi Khasrat khatauni.	Name of land owner with brief description.	Name of cultivator with brief description.	Field No.	Area.	Land Revenue.	Cesses.	Total.	REMARKS.

Notes.—Column 6.—1. When part of a field is affected the word "min" should be entered.

Columns 7—10.—2. If there are more entries than one in any village, totals for the village should be entered.

3. At the end of entries for each village number of acres in column 7 and rate per acre should be noted in red ink.

FORM B.

ABSTRACT OF FIXED LAND REVENUE REMISSIBLE ON ACCOUNT OF
KALLAR FOR RABI 191 IN TAHSIL _____ DISTRICT FEROZEPORE.

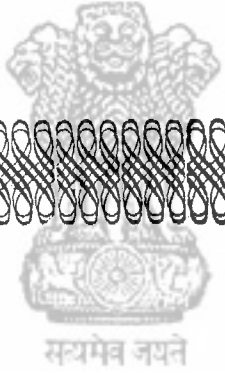
1	2	3	4	5	6	7	8
Serial No.	Topographical No.	Name of villages.	Area in acres of land rendered unculturable by Kallar.	LAND REVENUE REMISSIBLE ON AREA NOTED IN COLUMN 4.			REMARKS.
				Land revenue.	Cesses.	Total.	
				Rs.	Rs.	Rs.	

D.
Parchas relating to the re-imposition of land revenue.

D.
Parchas relating to the re-imposition of land revenue on account of cultivation of land affected by kallar.

NUMBER		Counterfoil.		
1	2	3	4	5
Field No.	Area.	Land revenue to be re-imposed.	Harvest from which proposed.	Signature of patwari with date of delivery.

Note.—Objection can be preferred to the Tahsildar within 15 days after which it will not be entertained.



Name of malguzar with parentage, caste and residence.

Signature, seal or thumb impression of malguzar or lambardar.

1	2	3	4	5	6	7	8
Serial No.	Topographical No.	Name of village.	Area in acres the land revenue of which was remitted on account of Kallar but which has since been sown.	LAND REVENUE TO BE RE-IMPOSED.			REMARKS.
				Land Revenue.	Cesses.	Total.	
				Rs.	Rs.	Rs.	



General Statement.

[illegible]

STATEMENT II.

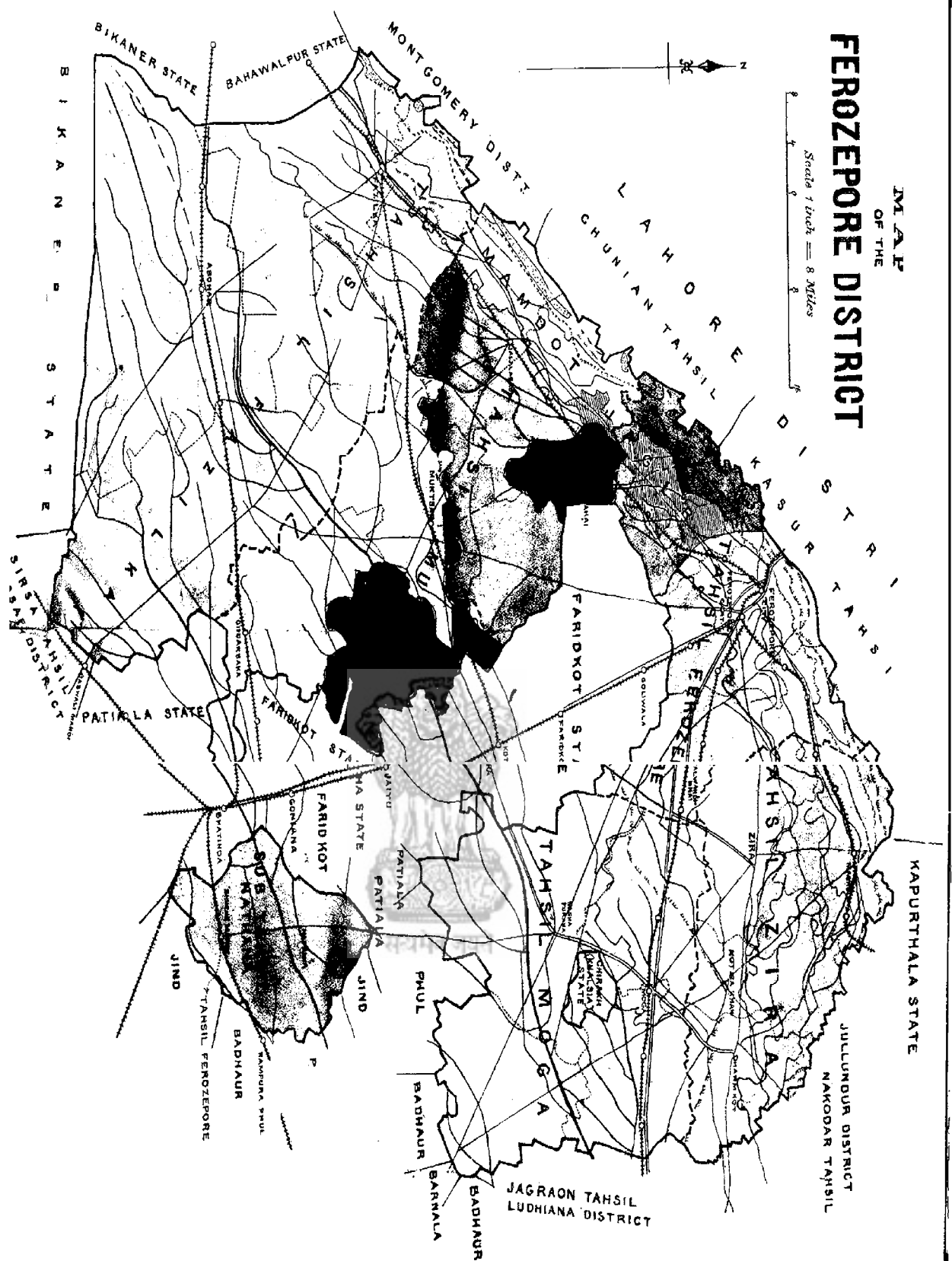
Total expenditure on re-assessment operations.

Serial No.	Budget heading.						Actual expenditure.
							Rs.
1	Salary and settlement allowance of Gazetted Officers						94,130
2	Office kanungos						14,932
3	Menial establishment						28,984
4	Settlement Tahsildars						24,064
5	Settlement Naib Tahsildars						49,778
6	Field kanungos including field allowance						83,110
7	Temporary establishment						65,632
8	Travelling allowance of Officers						10,805
9	Travelling allowance of establishment						15,054
10	Contingent expenditure except stationery and lithography						61,082
11	Stationery						15,638
12	Lithography						3,962
	Total						4,67,161
	Estimated further expenditure						7,415

N.B.—The figures for actual expenditure are up to the end of February 1915.

MAP OF THE FEROZEPUR DISTRICT

Scale 1 inch = 8 Miles



REFERENCES

1	MATTALED ROAD	
2	UN. " "	
3	RAILWAYS WITH STATION	
4	CANALS & GRANCHES	
5	DISTRICT BOUNDARY	
6	TAHSIL " "	
7	ASSESSMENT CIRCLES	
8	KANUNGS	
9	RIVER	
10	HIGH BANK OR DANDA	

ASSESSMENT CIRCLES

1	FEROZEPUR	MAHRAJ
2	"	ROHI
3	"	BET
4	MAMDOT JAGR	ROHI
5	"	OHRA
6	"	MAMDOT BET
7	"	DALALAB BET
8	"	ROHI
9	"	GREY CANAL
10	"	ROHI
11	"	BET
12	MUKTSAN	ROHI
13	"	UTAR KOT KAPUR
14	"	HITMAR
15	"	GURU HARANAI
16	"	PAILKA
17	"	ROHI
18	"	UTAR
19	"	HITMAR